

CONTENTS

	Preface	F.R. Allchin	ix
	Acknowledgements		xiii
	List of Illustrations		xv
1	Introduction	Robin Coningham	1
2	The Physical Environment	Randolph Haggerty and Robin Coningham	7
	2.1 Introduction		7
	2.2 Geology		7
	2.3 Climate		9
	2.4 Drainage and relief		9
	2.5 Flora		10
	2.6 Fauna		11
	2.7 Soils		11
3	The City of Anuradhapura	Robin Coningham	15
	3.1 Introduction		15
	3.2 History of archaeological research		15
	3.3 The Citadel zone		17
	3.4 The monastic zone		21
	3.5 The tank and village zone		23
	3.6 The forest and hermitage zone		25
	3.7 Conclusion		26
4	The Fortifications	Robin Coningham and Paul Cheetham	47
	4.1 Introduction		47
	4.2 Previous investigations of the Citadel's defences		47
	4.3 Methods and techniques		48
	4.3.1 Surface survey		48
	4.3.2 Proton magnetometer survey		48
	4.3.3 Earth resistivity survey		48
	4.3.4 Soil auger coring survey		49
	4.4 The northern fortifications		49
	4.5 The eastern fortifications		50
	4.6 The southern fortifications		51
	4.7 The western fortifications		51
	4.8 Dating the fortifications		52
	4.9 Conclusion		54
5	The Excavations at ASW2	Robin Coningham	71
	5.1 Introduction		71
	5.2 Structural period K		71
	5.3 Structural period J		72
	5.4 Structural period I		74
	5.5 Structural period H		77
	5.6 Structural period G		77
	5.7 Structural period F		79
	5.8 Structural periods D and E		80
	5.9 Structural period C		80
	5.10 Structural period B		81
	5.11 Structural period A		82
	5.12 Conclusion		82

6	Dating the Sequence	Robin Coningham and Cathy Batt	125
	6.1 Introduction		125
	6.2 Structural period K		126
	6.3 Structural period J		126
	6.4 Structural period I		127
	6.5 Structural period H		128
	6.6 Structural period G		128
	6.7 Structural period F		129
	6.8 Structural periods E, D, C, and B		129
	6.9 Structural period A		130
	6.10 Conclusion		130
7	Conclusions	Robin Coningham	135
	References		149
	Appendix A: Sri Lanka's Rulers: A Chronological List		155
	Appendix B: ASW2 Context Descriptions		159
	Appendix C: Radiocarbon Ages of Measured Samples from ASW2		209

PREFACE

F.R. Allchin

THE origins of the cities of Greece and Rome have long been the subject of scholarly attention, together with the social evolution that accompanied the formation of their states. In the mid-nineteenth century ancient historians, and particularly Fustel de Coulanges, achieved a striking depth of understanding of these themes, almost wholly on the basis of textual data (Coulanges 1864). This was long before archaeologists developed an active interest in such things.

Historians of South Asia were slow to follow in their footsteps. Only in the past half century have such scholars as D.D. Kosambi, Debriprasad Chattopadhyaya, Romila Thapar and Ram Sharan Sharma begun to focus attention on what was involved in the rise of cities in South Asia and in its social and economic implications. With the notable exception of Marshall's excavations at Bhita (1912) and Taxila (1951), South Asian archaeologists for the most part have neglected to use their discipline to contribute to the study of Early Historic cities. A. Ghosh in his small book *The City in Early Historical India* (1973) and D.K. Chakrabarti in his PhD thesis on *Early Urban Centres in India* (1972) were each in their own way pioneers. Nevertheless, up to the present time, archaeological fieldwork at Early Historic cities in India has been largely limited to cutting sections through city ramparts with a view to establishing their chronology, and the unique opportunities offered – for example by the Nagarjunasagar dam project – have to a large extent been wasted.

My introduction to the early cities of the Ganges valley goes back to the early 1950s. At that time my wife and I were inspired by a number of site visits. These included Hastinapur in the company of B.B. Lal and B.K. Thapar; Kausambi under the guidance of Professor G.R. Sharma, then excavating there; and Kumrahar, where we were happy to meet Vijayakanta Mishra, a brilliant young archaeologist whose early death robbed Indian archaeology of a most promising career. These visits gave me the beginnings of a new perspective which was far removed from the text-centred history I had hitherto learned. I remember giving a lecture in London around that time in which I argued that the society which gave rise both to the early Upanisads and to Buddhism should be seen in the context of the life and culture of the new cities. With regard to the former philosophical texts, forest hermitages may have been their setting, but they must also have been near enough to cities to permit the meetings and discussions with local kings (such as Ajatasatru of Kasi and Janaka of Videha) and the bestowal of royal gifts of great herds of cattle.

Moreover, the proximity of their ashrams to major settlements seemed to be a requisite for the sages to enjoy the material support of the local population. Surely, I argued, this indicated that the sages and disputants in the *Brihadaranyaka Upanisad* and the *Chandogya Upanisad* were not the forerunners of the early cities, but rather among their products. Regarding the rise of Buddhism the case was even clearer, since it was generally agreed that this took place in the context of the emergence of a powerful merchant class in the cities. Moreover, the Suttas themselves gave ample support for the close links between early Buddhism and the cities. In those days I was unaware of Max Weber's *Hinduism and Buddhism* (1920, English translation 1958), where this view had been expressed with great clarity some forty years earlier.

My attention was drawn to early city formation in Sri Lanka during several visits to that country in the late 1980s. On one of these I read a paper, later published in 1989 in *South Asian Studies* (Allchin 1989), arguing that city formation appeared to have taken place more or less contemporaneously throughout South Asia. If this were the case, it should be treated as a South Asia-wide process and not thought of in isolation in any one part of the subcontinent. These occasions also offered an opportunity to visit the Citadel mound at Anuradhapura and witness at first hand the excavation of the carefully planned and sited sondages which Dr Siran Deraniyagala of the Department of Archaeology was at that time directing. I was struck by his bold and original plan, which coincided with my belief in the importance of purposefully designed research projects. I was particularly impressed by his systematic use of radiocarbon dates to provide a proper archaeological chronology (something which was surprisingly rare in most South Asian excavations before this). If this were combined with his carefully excavated stratigraphic sequence, a solid basis for chronology must emerge. This matter became even more important when early Brahmi inscriptions, scratched on pottery, were reported from the sondages. At first I was frankly sceptical and expressed the view that the inscriptions must be much younger than the radiocarbon dates suggested. All these things highlighted the need for such problem-oriented projects concerning the Early Historic period throughout South Asia. Until this wish becomes a reality our knowledge of the early cities and states of India, Pakistan, Afghanistan and Nepal must remain fragmentary and lack the balanced perspective that archaeology can provide.

While appreciating the originality of the concept of Dr Deraniyagala's project, I also became aware of its

limitations. The accumulated deposits of the Citadel mound at Anuradhapura are around ten metres in depth, and the excavation of sondages of only three metres square to such a depth was something of a *tour de force*. To begin with, working in so small an area makes the task of accurately recording the stratigraphy very difficult to achieve, not to say hazardous. For example, how accurate a picture can be obtained of features such as pits, or portions of pits? Moreover, the excavation of single sondages of such dimensions more or less completely rules out the possibility of discovering identifiable rooms or other structural features, let alone complete houses. Again, the opportunities for recording the positional contexts of finds in relation to other objects or features must be reduced by the small area available, and many other aspects of cultural data are likely to be inaccessible. To me it appeared that a logical next step would be to undertake the excavation of a larger area, making possible the observation of areas of actual occupation large enough to reveal such evidence.

Dr Deraniyagala told me that he would welcome collaboration from foreign excavators. I suggested that we would like to field a British team and he expressed a positive interest. I added that, on account of my age and imminent retirement, I should want to entrust the field direction to a younger person. Further discussions of this plan were held with Dr Roland Silva, then Director of Archaeology, Professor Senaka Bandaranayake and others. The outcome was that Dr Deraniyagala very kindly invited our team to work under the aegis of his major Anuradhapura project and generously offered us the ASW2 site, alongside his own ASW sondage. The outcome was the six seasons of excavation and post-excavation fieldwork carried out between 1989 and 1994. I would like, at this point, to express my gratitude and that of the rest of our team to Dr Deraniyagala and his colleagues in the Sri Lankan Archaeological Department for their continuing support and encouragement. Without this our project would have been difficult, if not impossible to achieve.

I am happy therefore to be invited to write the Preface to the report of the excavations at ASW2. I was present at the first conception of the project, and so it is a matter of great satisfaction to see it reach its conclusion. The completion of the final report and its publication marks the fulfilment of the obligation we accepted from the start. To reach this point within a decade of the inception of the project is quite an achievement, bearing in mind the number of field seasons involved and the other preoccupations of several of the chief actors. No sooner was a field season completed than normal duties recommenced, including – not least – the earning of their livings. The successful completion of the several specialist reports from authors who were also heavily committed in other areas deserves recognition!

Perhaps this is a good point at which to make a small digression and express the personal view that all too often these days over-much emphasis is placed upon the need for prompt, almost instantaneous, publication of

excavation results. No one will dispute that preliminary reports should be published as early as possible. But the preparation of a final report, particularly when it has involved several seasons' work, must demand sufficient time for adequate research and study, for technical and scientific analyses to be made, and for the report itself to be written and edited. A few years' delay is a small price to pay for getting a comprehensive and maturely produced report. Surely this is to be preferred to a hastily written report, lacking in both depth of research and scholarship? Clearly there is a happy mean between too much haste, on the one hand, and too much perfectionism or delay on the other. One regrets that some grant-giving bodies seem to regard it as their duty to harass recipients of grants, particularly when the latter happen to be relatively junior, even threatening them, to produce final reports with unreasonable speed, as though speed were the overriding consideration. This it should never be.

The Sri Lankan-British excavations at Anuradhapura, site ASW2, constitute a further contribution to the growing body of data regarding the early history of the site. The present publication is in two parts, that is, two volumes, the first dealing with the site, the excavations and stratification, and the second with the various categories of objects and materials discovered. The chronology of the early occupation emerges with considerable clarity and, in spite of minor differences between our dating and that obtained from Deraniyagala's sondages, the impressive number of radiocarbon samples deriving from both must make Anuradhapura archaeologically one of the most firmly dated Early Historic cities of the subcontinent. The radiocarbon chronology can be applied with confidence to the remarkable series of structural periods discovered in the site and discussed in chapters 5 and 6 of the present volume.

The earliest structures, in periods K and J, were circular huts with timber posts and wattle and daub walls, and buildings of this type continued to be made through a series of eight or more reconstructions. Structural period I witnessed a major change with the introduction of rectangular buildings of timber and wattle and daub, apparently carefully oriented. This was evidently the time when Anuradhapura was refounded as a city planned on traditional South Asian lines. Once again in this period there were around eight further reconstructions. A substantial change in building construction and materials took place in structural period G, when solid buildings of burnt brick and occasional limestone blocks, and terracotta roof tiles, appeared for the first time. This period too witnessed a further five reconstructions. From structural period F forwards one more major change in building materials was introduced, with structural stonework, including columns and beams, used to a quite unprecedented extent. This period heralded the beginning of the largely stone architecture which was to remain a feature of the 'Anuradhapura period', throughout its life as a capital city. Thus in the course of the excavations at ASW2 well over a millennium of structural history has been identified and dated.

Our work was also able to throw new light on the nature and history of the fortifications surrounding the city. We were fortunate to be able to study the section excavated in 1992 by the Sri Lankan-Japanese team, near the southern gate. We made a fresh study of the ditch and ramparts from the surface of the mound by remote sensing, using a proton magnetometer, a resistivity meter and a soil auger. By these means it was possible to obtain both a preliminary chronology for the city ramparts and a much wider perspective of the fortifications than could be had from the customary excavation of a single cross-section, used on many Early Historic ramparts in northern India.

In the second volume of the report the finds are studied. These reveal much interesting and exciting material, of which one or two categories may suffice as examples. The pottery is dealt with in Chapter 5: Glazed Ceramics and Chapter 6: Unglazed Ceramics. The predominant pottery, from period K forwards, was a black and red burnished ware, made by a craft tradition and producing a range of forms strikingly similar to those reported in early Iron Age settlements throughout peninsular India. By structural period I the pottery range was augmented by two imported fabrics, a grey ware of a finely sorted clay and Rouletted ware of equally finely sorted clay. Along with these wares came other categories of finds providing evidence of importation and of growing foreign trade – pieces of glass, varieties of beads etc. From period I onwards small numbers of coins begin to appear in the excavations. These are studied in Chapter 2: Coins and, incidentally, provide an opportunity for a critical comparison of the chronologically determined stratification in relation to the various coin types. It may be remarked that in early South Asia coins are for the most part imprecisely dated by their find spots, while at the same time the chronology of many coin types has remained ill-defined. Hence there is a real need for this kind of analysis. The inscriptions and graffiti found in ASW2 are studied in Chapter 9: Epigraphy. Graffiti appear on pottery

throughout structural period J and onwards, only disappearing around the start of the Christian era. The first examples of crudely scratched Brahmi letters occur before the end of period J, and from period I onwards more regular use of script is found. The short inscriptions on pottery appear to have served as a means of denoting ownership, either of the vessel or of its contents. The graffiti appear first in period K, while the inscriptions occur first at the end of period J. Thereafter both systems run parallel to one another. We may infer that both were used for the same purpose, to identify ownership, either of an individual or of a family or clan. The script shows only slight developments during the following two or three centuries, but virtually none of the changes of script which occurred in Sri Lanka in the early centuries AD are present, suggesting that the custom of inscribing pottery with owners' marks or inscriptions ended before that time. By c. 200 BC some of our inscriptions bear the names and titles of several royal ladies and an official, all of whose names are already known from early Buddhist cave inscriptions.

In sum, the excavations at Anuradhapura provide a wonderful database of evidence relating to the early history of Sri Lanka before, at and after the time when it became a capital city. From it we can study the stages of the emergence of a city and its subsequent growth. The record presented in this publication and its companion volume is, as far as can be, honest and objective. A point is now being reached at which one may confront the early textual tradition of Sri Lanka with the archaeological data. The study of the evidence for trade and foreign imports takes us far beyond the island; while the inscriptions and graffiti take us into the very centre of the state, maybe even into the residence of the ruling family. The excavations leave many questions unanswered and raise many new and difficult problems of interpretation. But they do, we believe, point to the way in which archaeology can contribute to advancing knowledge of the processes of early city and state formation in South Asia.

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LIST OF ILLUSTRATIONS

Alistair Wilson kindly prepared Figures 33, 37, 41, 45 and 53. The remaining plans were prepared by John Sigrave, the maps by Steve Cheshire, and the photographs were taken by Robin Coningham.

Colour Plates

Ia	Conducting a geophysical survey of the Citadel's fortifications	xxi
Ib	Trench ASW2	xxi
IIa	Buildings A and C with Daladage and Mahapali in background	xxii
IIb	The Mahathupa	xxii
IIIa	The Abhayagiri stupa	xxiii
IIIb	Jaya Ganga channel	xxiii
IVa	The Kiribat vihara stone bridge	xxiv
IVb	Exposed wall close to eastern gate	xxiv
Va	Trench ASW2	xxv
Vb	Structural phase J2	xxv
VIa	Pit 1371 (structural phase J3)	xxvi
VIb	Structural phase I1	xxvi
VIIa	Furnace or oven 1109 and 1111 (structural phase I2)	xxvii
VIIb	Floor 613 and sf 10186 (structural phase G3)	xxvii
VIIIa	Floor 408 (structural phase G4)	xxviii
VIIIb	Floor 405 (structural phase G5)	xxviii
IXa	Walls 339, 437, 442, 444, 453, 455 and 471 (structural phase G5)	xxix
IXb	Structural phase F	xxix
Xa	The megalithic cemetery at Ibbankatuva	xxx
Xb	<i>Puja</i> around Buddhist stupa at Mihintale in 1990	xxx

Figures

1	Map showing location of Sri Lanka and Anuradhapura	5
2	Surveying structures in trench ASW2	6
3	Taking an auger core through the Citadel's archaeological deposits	6
4	Map showing Sri Lanka's topography and rainfall	13
5	Map showing Sri Lanka's raw materials	14
6	Plan of Anuradhapura	29
7	Schematic plan of Anuradhapura (after Seneviratna 1994)	30
8	Section of sondage AG-69 (after Deraniyagala 1972)	31
9	Plan of the Citadel showing the location of sondages	32

10	The western defences of the Citadel showing ramparts on right and silted moat in foreground	33
11	Plan of final occupation phase street (after Ayrton 1924)	34
12	Plan of Paranavitana's excavations (after Paranavitana 1936)	35
13	Building A	36
14	The Gedige	36
15	Augering in front of 'Vijayabahu's palace'	37
16	Plan of 'Vijayabahu's palace'	38
17	The Bodhi tree shrine	39
18	The Thuparama stupa	39
19	The Mirisavati stupa	40
20	The Jetavana stupa	40
21	The Basavakkulam	41
22	The Tissavava	41
23	The Nuvaravava	42
24	The Toluva stupa	42
25	The Western monasteries	43
26	The Vessagiri vihara	43
27	An early Brahmi inscription at Vessagiri	44
28	The Meghagiri vihara	44
29	The northern annicut on the Malvatu Oya in the process of being encased within a modern dam	45
30	The Kalavava	45
31	Plan of the Citadel (after Hocart 1924)	57
32	Auger core profile through the Citadel	58
33	Plan of the northern survey sector	59
34	The northern fortifications <i>in situ</i>	59
35	Resistance survey of the northern fortifications	60
36	Auger core profile through the northern fortifications	facing page 60
37	Plan of the eastern survey sector	61
38	The eastern fortifications	61
39	Resistance survey of the eastern fortifications	62
40	Auger core profile through the eastern fortifications	facing page 62
41	Plan of the southern survey sector	63
42	Resistance survey of the southern fortifications	64
43	Auger core profile through the southern fortifications	facing page 64
44	The southern fortifications	65
45	Plan of the western survey sector	65
46	The western fortifications	66
47	Section and auger profile through the southern rampart	67

List of Illustrations

48	Primary rampart construction phase	68
49	Sixth rampart construction phase	68
50	View from the southern fortifications to the Mahathupa	69
51	Plan of ASW2's immediate environment	85
52	Exposed pillar tops at ASW2	86
53	Southern section of ASW2	87
54	Plan of structural phase K1	88
55	Plan of structural phase K2	88
56	Plan of structural phase K3	89
57	Structural phase K3 from the northeast	89
58	Well 1279 (structural phase K3)	90
59	Plan of stratigraphic phase XI	90
60	Plan of structural phase J1	91
61	Plan of structural phase J2	91
62	Plan of structural phase J3	92
63	Plan of pit 1371 (structural phase J3)	93
64	Plan of structural phase J4	94
65	Structural phase J4	94
66	Furnace or oven 1235 (structural phase J4)	95
67	Plan of structural phase J5	95
68	Plan of stratigraphic phase XXII	96
69	Plan of structural phase I1	96
70	Furnace or oven 1148 (structural phase I1)	97
71	Plan of structural phase I2	97
72	Plan of furnace or oven 1109 and 1111 (structural phase I2)	98
73	Plan of structural phase I3	99
74	Plan of structural phase I4	99
75	Structural phase I4	100
76	Plan of clay floors 972, 973, 974, 975 and 976 (structural phase I4)	100
77	Plan of tile collapse 894, 905, 912 and 914 (structural phase I4)	101
78	Tile collapse 894, 905, 912 and 914 (structural phase I4)	101
79	Plan of structural phase I5	102
80	Plan of structural phase I6	102
81	Plan of structural phase I6	103
82	View of vessel 879 <i>in situ</i> (structural phase I6)	103
83	Structural phase I7	104
84	Plan of structural phase I7	104
85	Plan of structural phase I8	105
86	Plan of trough 736 (structural phase H1)	105
87	Plan of trough 733 (structural phase H2)	106

88	Plan of structural phase H1	107
89	Plan of structural phase H2	107
90	Plan of structural phase G1	108
91	Plan of structural phase G2	108
92	Plan of structural phase G3	109
93	Plan of structural phase G4	109
94	Plan of structural phase G5	110
95	Paving 450 (structural phase G5)	110
96	Foundation pit 669 and slot 637 (structural phase G5)	111
97	Plan of pillar foundations (structural phase F)	111
98	Pillar foundation 306 (structural phase F)	112
99	Pillar foundation 306 (structural phase F)	112
100	Elevation of pillar foundation 370 (structural phase F)	113
101	Plan of pillar foundation 358 (structural phase F)	114
102	Plan of pillar foundation 304 (structural phase F)	115
103	Plan of structural phases D and E	116
104	View of base of pit 535 (structural phases D and E)	116
105	Pit 274 (structural phases D and E)	117
106	Pit 274 (structural phases D and E)	117
107	Plan of structural phase C	118
108	Structural phase C	118
109	Plan of structural phase B1	119
110	View of southeast corner of structural phase B1	119
111	Plan of structural phase B2	120
112	Plan of structural phase B3	120
113	Plan of structural phase B4	121
114	Structural phase B4	121
115	Plan of structural phase B5	122
116	Plan of structural phase A	122
117	Plan of the surface at ASW2 prior to excavation	123
118	Sf 17420 (structural phase J4)	124
119	Phased and calibrated dates from ASW2	133
120	Map showing later prehistoric and Iron Age sites in Sri Lanka	143
121	Map showing Early Historic urban sites in South Asia (adapted from Allchin 1990)	144
122	Map showing an alternative location of Sri Lanka	145

Table

Table 1 Chronological summary of the sequence at ASW2

Table 1: Chronological summary from the sequence at ASW2 (earliest appearance)

[illegible]



Pl. Ia: Conducting a geophysical survey of the Citadel's fortifications



Pl. Ib: Trench ASW2



Pl. IIa: Buildings A and C with Daladage and Mahapali in background



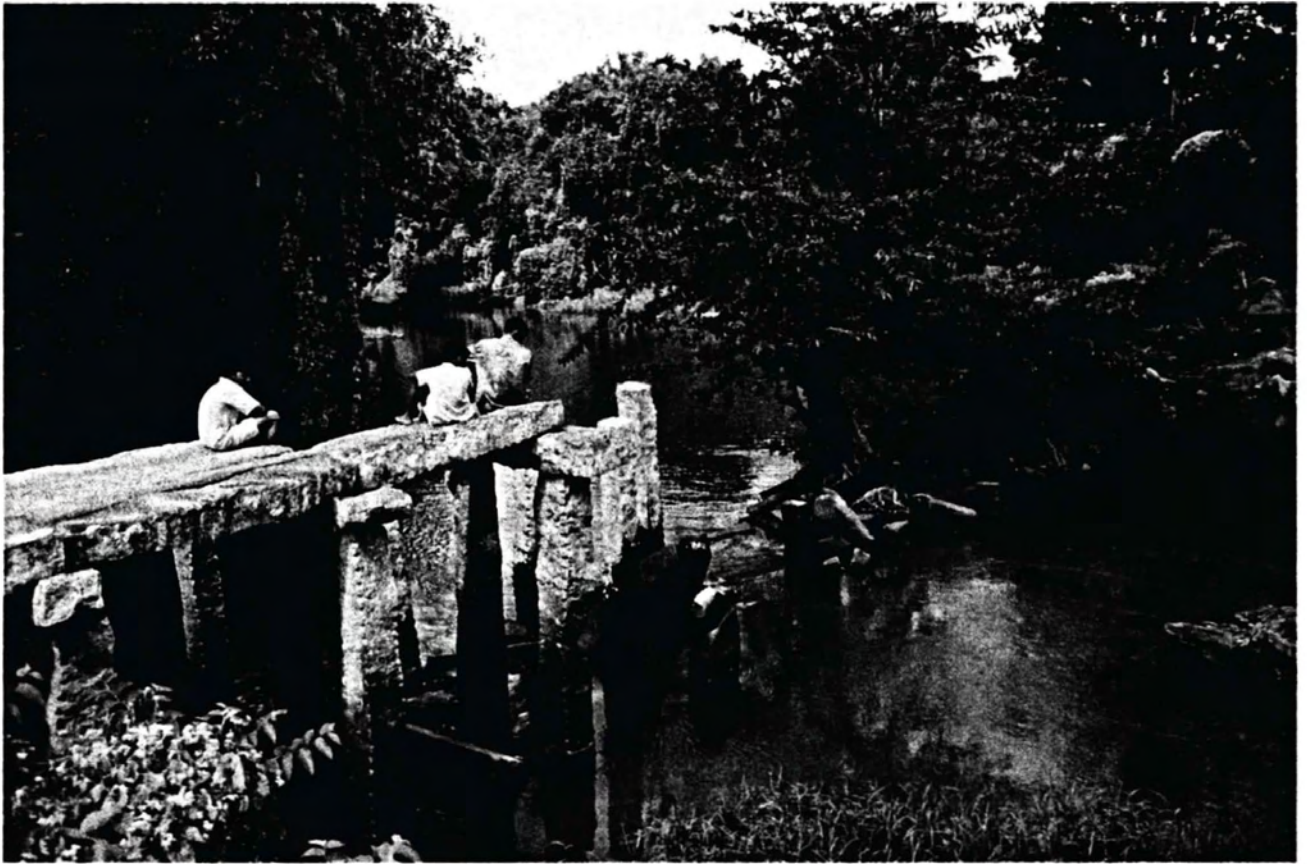
Pl. IIb: The Mahathupa



Pl. IIIa: The Abhayagiri stupa



Pl. IIIb: Jaya Ganga channel



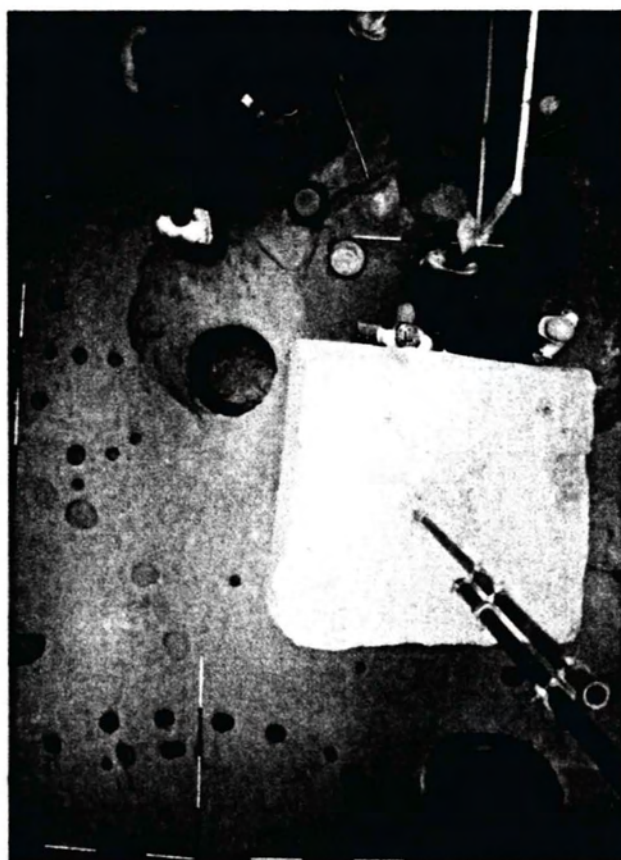
Pl. IVa: The Kiribat vihara stone bridge



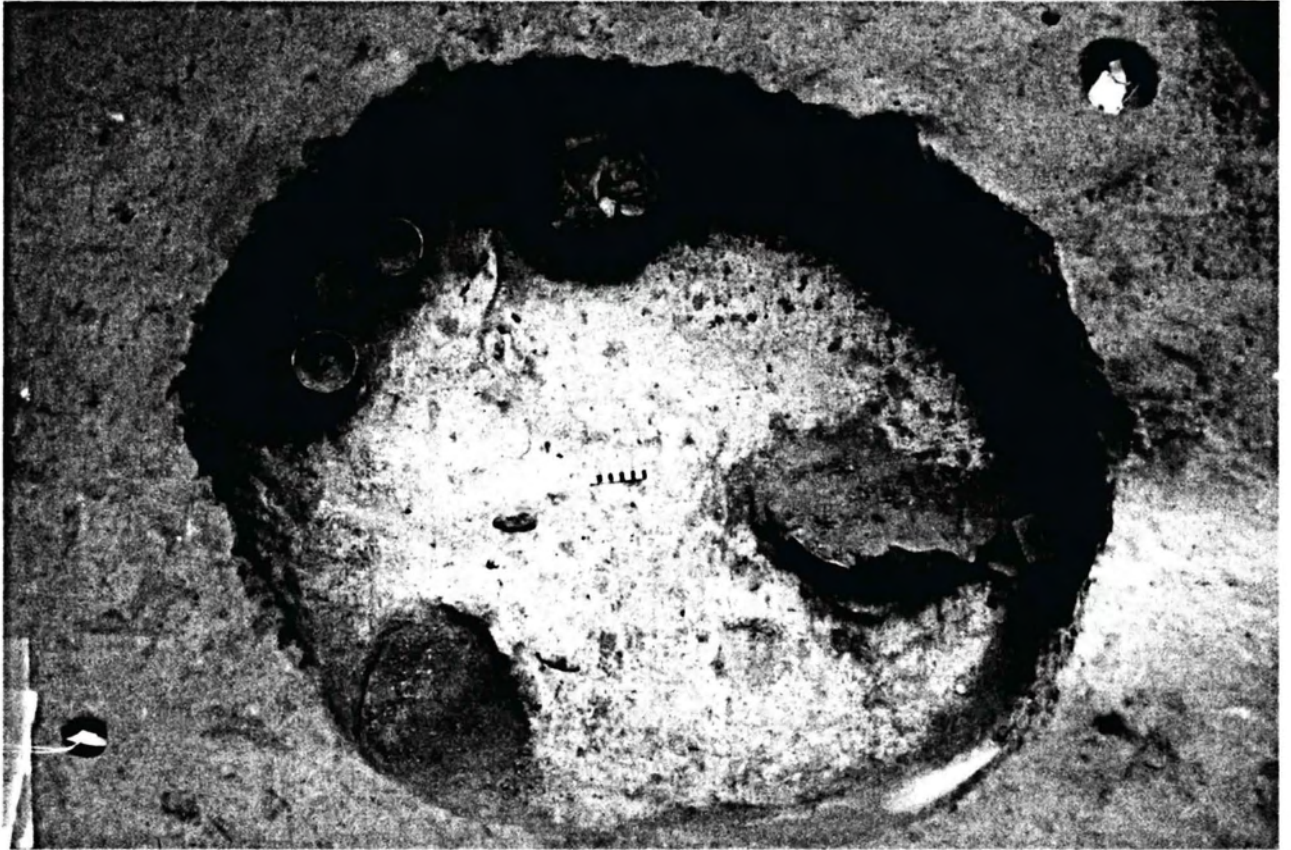
Pl. IVb: Exposed wall close to eastern gate



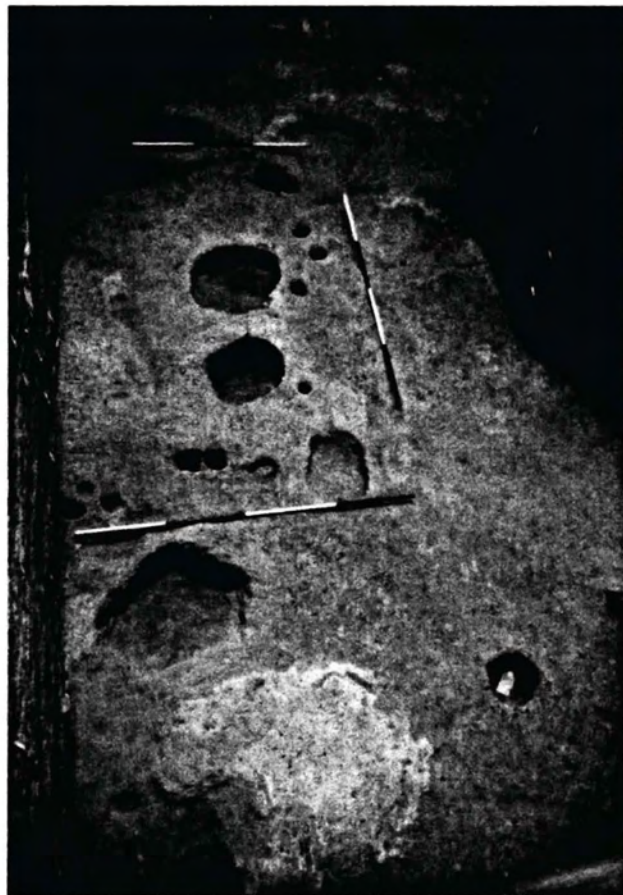
Pl. Va: Trench ASW2



Pl. Vb: Structural phase J2



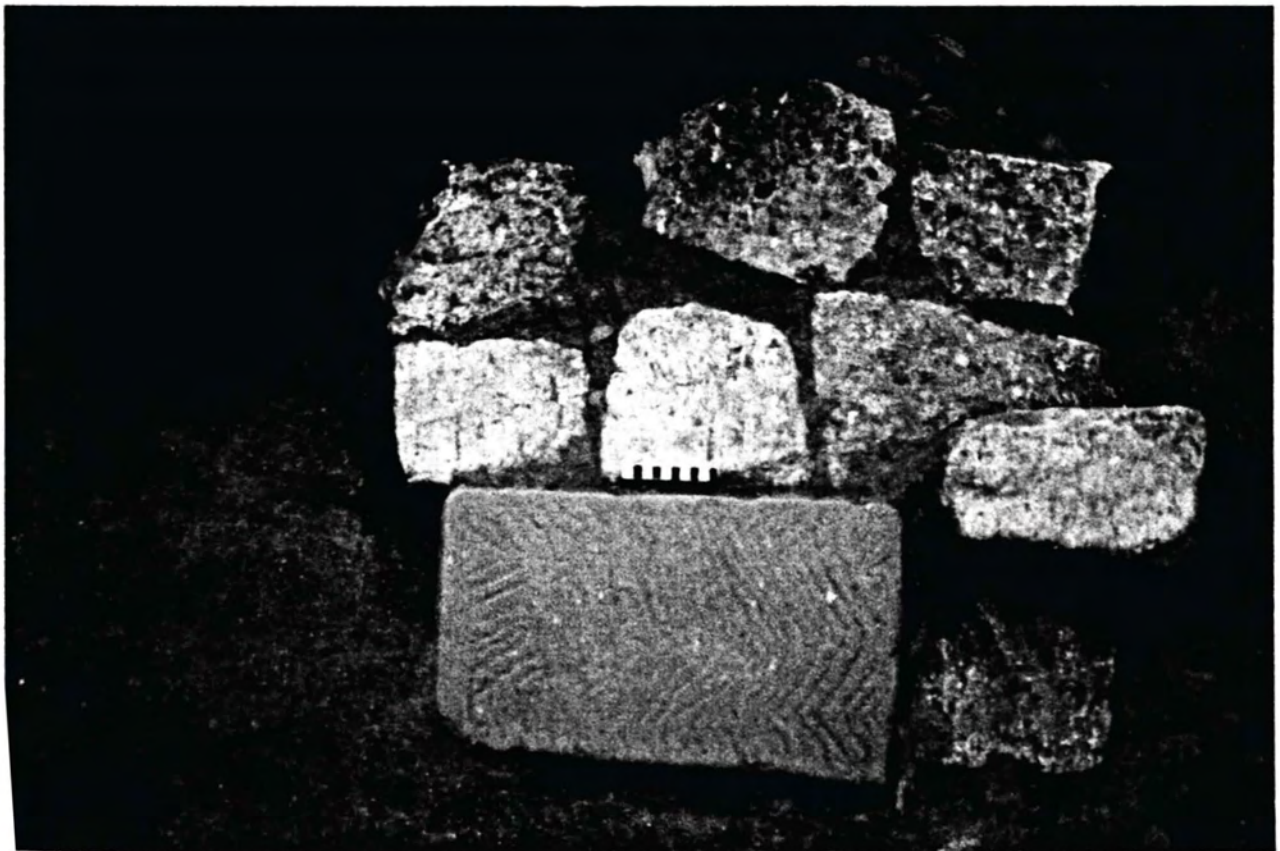
Pl. VIa: Pit 1371 (structural phase J3)



Pl. VIb: Structural phase II



Pl. VIIa: Furnace or oven 1109 and 1111 (structural phase I2)



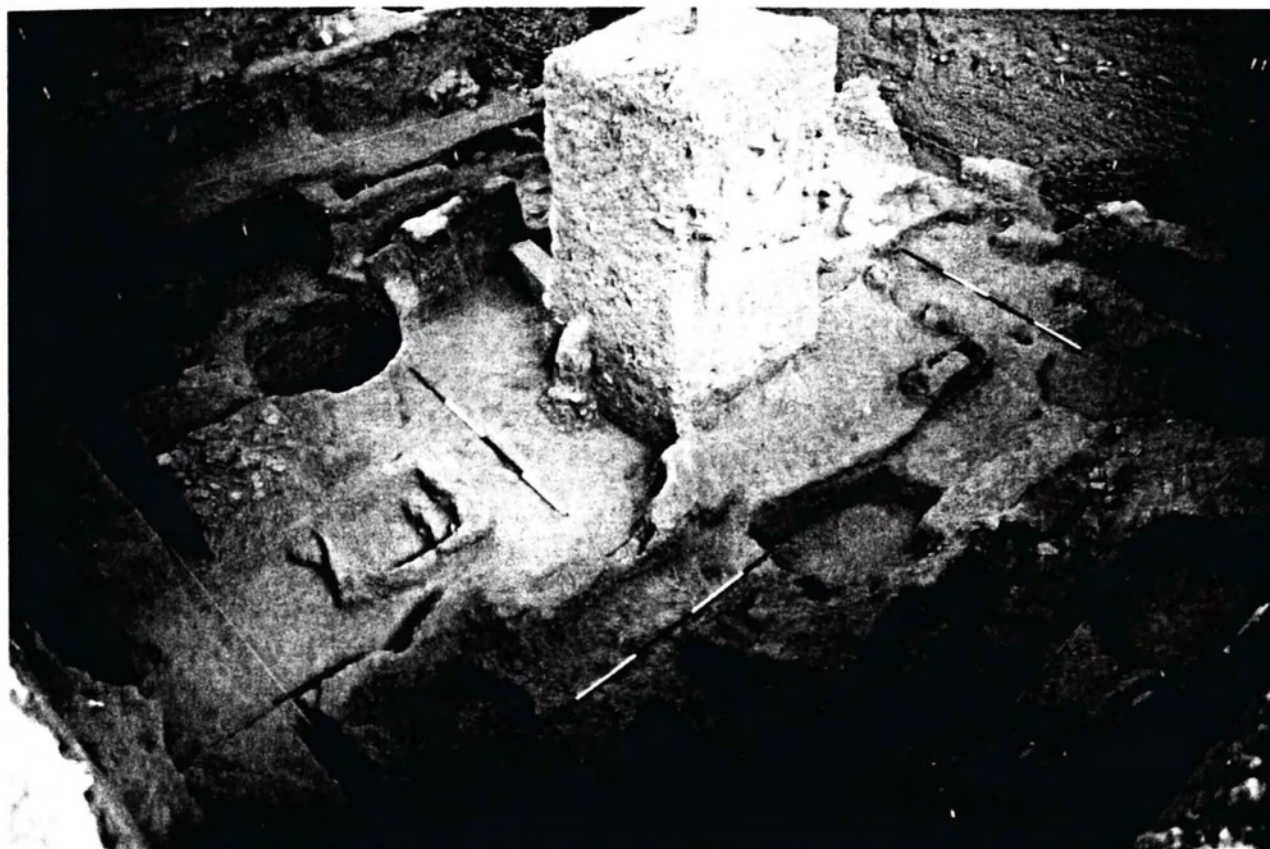
Pl. VIIb: Floor 613 and sf 10186 (structural phase G3)



Pl. VIIIa: Floor 408 (structural phase G4)



Pl. VIIIb: Floor 405 (structural phase G5)



Pl. IXa: Walls 339, 437, 442, 444, 453, 455 and 471 (structural phase G5)



Pl. IXb: Structural phase F



Pl. Xa: The megalithic cemetery at Ibbankatuva



Pl. Xb: Puja around Buddhist stupa at Mihintale in 1990

CHAPTER 1

INTRODUCTION

Robin Coningham

THE modern settlement of Anuradhapura is the capital of Sri Lanka's North Central Province and has a population of some fifty thousand. However, in the nineteenth century, it was little more than 'a small mean village, in the midst of a desert' (Davy 1821: 225) (Fig. 1). Anuradhapura's recent genesis owes much to the colonial restoration of the ancient irrigation system of the area (Parker 1909; Brohier 1934), but a great deal more to its role in the hearts and minds of many Sri Lankans as the royal capital of the island for over one and a half millennia. To some it is a symbol of the island's magnificent pre-colonial past, echoed on modern Sri Lankan banknotes and stamps; to others it is a holy city to be visited on pilgrimage; while to others still it is a reminder of Asia's rich cultural heritage, a heritage which has been barely exposed. It is a city which, through the pressures of modern politics, has been politicized from the massacres of 1986 to the restoration of the Mirisavatiya stupa by the late President Ranasinghe Premadasa in 1993. It is also a city which has kept the same name from its initial foundation in the first millennium BC to its selection in AD 1873 as the administrative centre of colonial Ceylon's North Central Province, despite abandonment from the eleventh century AD.

It also represents, as noted by Anuradha Seneviratna, one of the world's major archaeological sites, covering over 40 square kilometres (Seneviratna 1994: 13). Although recognized and protected as a UNESCO World Heritage Site, the process of curation of these monuments and their environs was begun in the nineteenth century by colonial officials prior to the development and establishment of an Archaeological Survey in 1890. This process was greatly strengthened in the late 1950s when the Prime Minister, S.W.R.D. Bandaranaike, ordered the destruction of the structures of the administrative centre which had been established by the British in the heart of the ancient ruins of the capital of Anuradhapura and thus separated the city into two – a sacred city and a new town. While archaeological investigations continued at Anuradhapura under the auspices of the Archaeological Survey and the Anuradhapura Preservation Board, the scale and speed of research altered radically with the creation of the UNESCO – Sri Lanka Project of the Cultural Triangle by President J.R. Jayewardene in 1980. In Anuradhapura, the programme undertook to safeguard the Abhayagiri and Jetavana monastic complexes by excavating, conserving and presenting them to both pilgrims and tourists. At the same time the

Archaeological Survey continued to carry out research and in 1984 set up the Anuradhapura Citadel Archaeological Project (ACAP), under the direction of Dr Siran Deraniyagala, specifically to investigate the ancient urban core of the complex. This volume presents the results of a single trench, Anuradhapura Salgaha Watta 2 (ASW2), and associated fieldwork that was carried out under the auspices of the ACAP by a collaborative Sri Lankan–British team between 1989 and 1994 (Pl. Ia, Figs 2, 3).

Archaeologically, Anuradhapura is an extremely important site as it fills a lacuna in the chronological and artefactual sequences for the island. Whilst major excavations have been conducted over the last thirty years at the major sites of Mantai, Kantarodai, Pomparipu and Ibbankatuva, the associated reports are still only at a preliminary stage. This state of affairs has led to a reliance upon textual sources for much of the early history of the island and a subsequent relegation of archaeological research to support such sources. Such a process has not been without its problems (Coningham 1994a, 1995a), and it is hoped that this volume and its companion volume will illustrate some of the opportunities that archaeology can offer the historian. This process, combined with a general absence of chronometric dating, has led also to the lack of a classic type site for the island's chronologies. It is hoped that these two volumes, augmented by the future publication of the ACAP's sondages excavated between 1984 and 1990, will allow Anuradhapura to provide a typological artefactual and structural sequence with which to date other sites within the island.

Anuradhapura also fills a lacuna in the chronological and artefactual sequences for the southern part of South Asia. It can undoubtedly be classified as an Early Historic fortified city and, as the most southerly example of its type, helps us to understand the test models for this, the second urbanization of South Asia. Indeed, the nearest known examples of similar cities are at Dhanyakataka in Andhra Pradesh and Banavasi in Karnataka, some 900 km to the north. The presence of a fortified urban centre in the interior of the island in the fourth century BC surely recommends re-examination of earlier hypotheses that the urbanization of the peripheries of South Asia occurred as a direct result of Mauryan expansion and contact in the third century BC. Indeed, the excellent sequence of structures and artefacts at Anuradhapura allows us to study an aspect of the urbanization of South Asia in some detail, with development from a small Iron Age settlement to

a medieval metropolis. Unlike many of the great Early Historic cities in the north of the subcontinent, Anuradhapura is protected to ensure that it is relatively free of the pressures of increasing urbanism and agriculture.

Another aspect of this importance is illustrated by Anuradhapura's pivotal role in Indian Ocean trade. Although rather better known sites such as Mantai (Carswell and Prickett 1984) or Arikamedu (Wheeler 1946; Casal 1949; Begley 1996) are frequently cited as providing clear evidence of the early and late stages of this trade, Anuradhapura, with its sequence from the beginning of the first millennium BC to the beginning of the first millennium AD, straddles its growth and development for almost two millennia. All the more surprising, then, that Anuradhapura is situated over 60 km from the coast, with no navigable river connecting the city to the sea. The second volume of the present report will provide ample evidence of this trade and contact with the coast in the form of early Islamic glass and glazed ceramics, Greco-Roman glass, metalwork and derived ceramic forms, Chinese glazed ceramics, imported semi-precious stones, as well as the presence of marine species at the site. Such studies have also allowed us to understand more about the position of Anuradhapura as a primate city within the island and its role as a centralized manufacturing centre. We have been able to study internal trade developments through analysis of metal-working, stone-working and shell-working debris at the site, allowing us to identify the stages at which different raw and semi-processed materials were processed within the site.

A further, connected aspect is the evidence at Anuradhapura for the development of writing systems within South Asia. The earlier prophetic work of Deraniyagala at Anuradhapura suggested for the first time that Brahmi, the ancestor of many of South Asia's vernacular scripts, occurred a number of centuries earlier than had previously been thought (Deraniyagala 1990a). It had been generally accepted that this script derived from a Semitic script developed in northern India under the Buddhist emperor, Asoka, in the third century BC and had spread southwards through the peninsula until it reached Sri Lanka (Bühler 1896; Winternitz 1927; Dani 1963; von Hinüber 1990). Our own work now supports Deraniyagala's earlier hypothesis, and evidence of Brahmi script dating to the beginning of the fourth century BC is presented in Volume II. This discovery, the earliest example of its kind in South Asia, has enabled us to reassess the traditionally accepted theories and suggest fresh hypotheses for its development and spread through trade (Coningham *et al.* 1996).

These combined archaeological factors help to overturn the cultural stereotype of Sri Lanka, which suggests that as it is situated at the southern tip of the peninsula it was the latest recipient of any innovation. As this theoretical paradigm appears to have been widely accepted, all resultant formulations of relative chronologies have naturally followed its directive. The

growing use of chronometric dating within Sri Lanka is helping to establish its position, not as a cultural cul-de-sac but as the pivotal point of South Asia. This is not to suggest, of course, that ritually Anuradhapura is not a site of more significance as a result of its association with Buddhism. This association has taken two forms, one in a physical sense of relics, the other in a more mystical sense, both of which are recorded in the *Mahavamsa* and *Culavamsa*, Pali texts which relate the history of the island.

The first type of significance is given by the presence of relics associated with the Buddha, or Buddhism, within the monastic establishments in the city. The *Mahavamsa* records that many of these relics were taken to the island during the reign of King Devanampiya Tissa (r. 250–210 BC), shortly after his conversion to Buddhism by Asoka's son, the devout Mahinda. The relics taken to Anuradhapura included the Buddha's right collar-bone, which was enshrined in the Mahavihara's Thuparama stupa (Mvs.xvii.55–57); a branch of the Bodhi tree under which the Buddha had obtained enlightenment, which was enshrined in the Mahavihara's Bodhighara (Mvs.xix.35–46); the bowl relic, which was enshrined in the Cetiya-pabbata close by at Mihintale (Mvs.xvii.22–24); and one of the original eight shares of the Buddha's remains from the stupa of the Koliyas of Ramagrama, which was then enshrined in the Mahathupa or Ruvanvalisaya (Mvs.xxxi.1–126). These relics of the Buddha were later supplemented by the arrival of the tooth relic from Kalinga during the reign of King Sirimeghavanna (r. AD 301–28). The latter was first housed in a building called the Dhammacakka within the Citadel itself (Cvs.xxxviii.92–98) before being installed in the Tooth Relic temple, or Daladage, during the reign of King Dhatu-sena (r. AD 455–73) (Cvs.xxxviii.70–72). This relic, a relative late-comer to Anuradhapura, was to become the symbol of kingship of the island and, when Anuradhapura became untenable, it was moved from capital to capital until in 1815 it was captured by the British.

While Anuradhapura was thus associated with the Buddha through his relics, it was also associated with him in a more mystical way. The *Mahavamsa* records that Anuradhapura was founded as a village by Anuradha (Mvs.vii.43), a minister of King Vijaya, who colonized the otherwise unoccupied island on the day of the Buddha's nirvana (Mvs.vii.1–4). The site was later settled by Prince Anuradha, brother-in-law of King Panduvasudeva, who built a tank and palace there (Mvs.ix.9–10). It was then selected by Prince Anuradha's great-nephew, King Pandukabhaya, as his new capital – Anuradhapura (Mvs.x.73–102). The association of the city with the Buddha is only later made in the *Mahavamsa* when it describes the reign of Pandukabhaya's grandson, King Devanampiya Tissa, in the third century BC. Following the latter's conversion to Buddhism by Mahinda, he presented the royal garden known as the Mahameghavana, situated to the south of Anuradhapura, to the *Sangha*, or Buddhist order, and

with Mahinda proceeded to mark out the future location of the various monastic monuments and structures. At each site Mahinda marked there was an earthquake and, on inquiring from the monk, Devanampiya Tissa was informed that similar establishments had been located in the same places during the lifetimes of the three Buddhas who had preceded the historical Buddha in the present era – Kakusandha, Konagamana and Kassapa. They had all visited the site in the past, when the city, the royal garden and even the island were known by different names. Thus the Buddha Kakusandha was given the garden Mahatittha by King Abhaya, when the city was known as Abhaya and the island as Ojadipa (*Mvs.xv.56–59*); the Buddha Konagamana was given the garden Mahanoma by King Samiddha, when the city was known as Vaddhamana and the island as Varadipa (*Mvs.xv.91–93*); and the Buddha Kassapa was given the garden Mahasagara by King Jayanta, when the city was known as Visala and the island as Mandadipa (*Mvs.xv.125–127*). The sanctity of Anuradhapura was further enhanced by a record in the *Mahavamsa* that Gautama Buddha himself, even before Vijaya's arrival, had visited the future site of the monastery and meditated at the future sites of the Bodhi tree, the Mahathupa and the Thuparama (*Mvs.i.80–83*). That these traditions were widely held is supported by the report of the fifth-century AD Chinese monk Faxian (or Fa Hsien), who visited Anuradhapura on a pilgrimage to the holy Buddhist sites and stated that the Abhayagiri stupa had been built over one of the footsteps of the Buddha, made when he visited the site (Beal 1869: 150). These factors, when combined with the series of monumental constructions erected by successive kings at the city, continued to add to the ritual significance of the site to Buddhists. Indeed, Anuradhapura contains seven of the island's sixteen holiest places of Buddhist pilgrimage: the Bodhi tree, the Maricavatticetiya or Mirisavati stupa, the Mahathupa or Ruvanvalisaya stupa, the Thuparama, the Abhayagiri vihara, the Jetavana vihara and the Selacetiya (Geiger 1960: 207). Even in the late eighteenth century AD this factor still caused Sri Lankan monarchs, by then confined by the European maritime powers to kingdoms in the hill country, to undertake pilgrimages to the ruins of the holy city (Coningham 1994a: 92). Anuradhapura is therefore not merely a ruined city, but a living cultural entity which intertwines identity, ritual, tradition and archaeology.

The report of the Sri Lankan-British excavations at trench ASW2 has been divided into two volumes – Volume I: *The Site* and Volume II: *The Artefacts*. It is

felt that the preparation of this report, six years after the final excavation season and four years after the last field study season, is not unduly excessive. The present volume – Volume I – contains a further six chapters which discuss the site, its location and chronology, and the excavations at trench ASW2. Volume II contains the artefactual chapters and has been divided largely according to the physical material (see p. 147 for a summary of Volume II's contents). In addition to the discussion of general aspects of each of these artefact categories, the actual catalogue data are also presented. While this block clearly makes up the largest section of Volume II, its position is key to the importance of the site. The publication of the artefacts from the excavations at trench ASW2 allows presentation of the data, enabling the conclusions presented here to be refuted or supported. It is hoped that their presence within Volume II will act as a catalyst. Our reasons for so doing are adequately summed up in Cunliffe's words (Cunliffe 1984: viii):

... no excavation report, however detailed, can hope to be more than an interim summary of a site. To suggest more would be naive or arrogant. A data-set of this kind . . . will continue to be reworked by students for the foreseeable future asking new and increasingly sophisticated questions. These reports merely advertise what is available and offer some general approximations to the truth which may help those interested in these matters to design new and more penetrating analyses.

Before commencing, certain conventions adopted in the text should be explained. Firstly, De Silva's list of Sri Lanka's rulers (see Appendix A) has been accepted as an initial framework for the island's chronology (De Silva 1981). We understand fully, however, that as this was based upon a combination of sources, including the *Mahavamsa*, the *Culavamsa* and various inscriptions, it is not necessarily free from error or omission (Coningham 1994a, 1995a). Secondly, for the sake of consistency, Bandaranayake's terminology and names for the monuments within Anuradhapura have been adopted within the text and illustrations (Bandaranayake 1974). Finally, it should be noted that all diacritical marks have been dispensed with, following the convention used in the *Cambridge Encyclopedia of India, Pakistan, Bangladesh and Sri Lanka* (Robinson 1989).

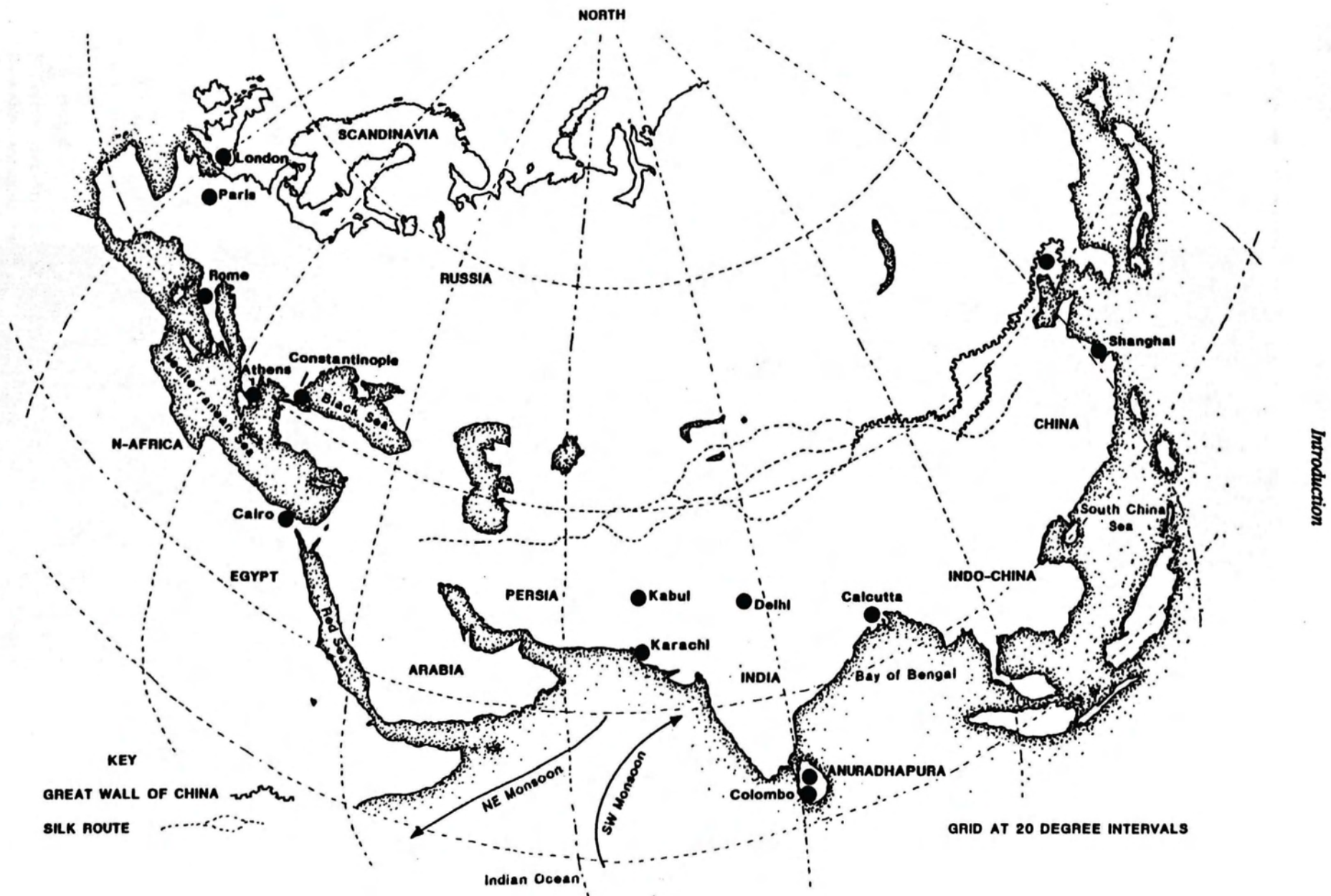


Fig. 1: Map showing location of Sri Lanka and Anuradhapura



Fig. 2: Surveying structures in trench ASW2



Fig. 3: Taking an auger core through the Citadel's archaeological deposits

CHAPTER 2

THE PHYSICAL ENVIRONMENT

Randolph Haggerty and Robin Coningham

2.1 Introduction

The modern administrative centre of Anuradhapura is situated in the north-central lowlands of the island of Sri Lanka (Fig. 4). Part of the island that is frequently referred to as the 'Dry Zone', it sits astride the division which Deraniyagala makes between ecozone A, semi-arid lowlands, and ecozone B, dry lowlands (Deraniyagala 1992: 2). These lowlands, which form part of the island's lowest peneplain, are less than 30 m above sea level and stretch down to the coast (Cooray 1984: 49). Mainly flat, but at times gently undulating, they are transversed by a series of rivers which rise in the foothills of the hill country in the centre of the island. In places isolated granitic erosion remnants or inselbergs form dramatic hills or ridges, while smaller, low rock mounds or turtle backs also scatter the plain (ibid.). The sites of Mihintale and Ritigala are well-known local examples of the former which reach heights of 309 m and 766 m above sea level, respectively.

Anuradhapura itself consists of a series of shallow valleys within the catchment of the 120 km long river known as the Malvatu Oya and its tributary, the Maminiya. The Malvatu rises from higher ground to the northwest of Sigiriya and, flowing in a northwestern direction, feeds into the lagoons to the south of Mantai, where it is known as the Aruvi Aru. The urban core of the archaeological site, the Citadel, covers approximately 100 hectares and is situated on a low ridge of raised ground on the western bank of the Malvatu Oya. The highest point of the Citadel is some 87 m above sea level and it stands 10 m above the surrounding land. In this chapter we will describe the physical environment surrounding the city, introducing the study area's geology, mineral resources, water resources, vegetation and climate.

2.2 Geology

In geological terms Sri Lanka is essentially an extension of the Indian peninsula (Cooray 1984). The island has neither been fully submerged by the sea nor suffered extensive crustal upheavals during mountain building. It became an island 12 million years ago when the land subsided, allowing the sea to inundate the land connection with southern India. The original island was smaller than it is today, with the northwest coast and

the Jaffna Peninsula being submerged below a shallow coral sea. At the end of the Miocene period, seven million years ago, the sea retreated and left the island with its general present-day outline (ibid.). Over the last two million years there have been minor fluctuations in the relative levels of sea and land, resulting in the formation of raised beaches, gravel terraces, buried river channels and lagoonal deposits. The island contains predominantly Precambrian rocks, with Tertiary (Miocene) limestones deposited in the Jaffna Peninsula (ibid.: 77-9). In the Anuradhapura region the geology consists of Precambrian high-grade metamorphic rocks of the Highland Series and Western Vijayan Complex. The Highland Series, which outcrops around Anuradhapura and in the east of the area, is comprised of quartzites, quartz schists, garnetiferous granulites, quartz-feldspar-garnet granulites, biotite-hornblende gneisses, graphite schist and carbonitite, invariably interbanded with charnockites (ibid.: 80-99). These metasedimentary rocks give ages of between 2000 and 3000 million years, with the main phase of metamorphism at 2000 million years. The Western Vijayan Complex outcrops in the west of the region and contains granitic gneiss, quartzite, biotite gneiss and granite (ibid.: 108-11). This succession of rocks post-dates the Highland Series with an age of 1150 \pm 60 million years. Both the Highland Series and the Western Vijayan Complex rocks have undergone extensive structural deformation with the formation of folds, faults and shear-zones.

Mineral resources in the Anuradhapura region are limited to small deposits of graphite, apatite, mica, clay and stone suitable for building (Fig. 5). Graphite, black lead or plumbago, as it is commonly called, is a pure crystalline form of carbon which occurs as minute flakes and nodules in many of the Precambrian crystalline rocks of Sri Lanka, especially the Highland Series (Cooray 1984: 232-8). It is also found as rosettes, veins, pods and lenses, and it is these concentrations that are commercially mined. The graphite veins range from a few centimetres to over a metre thick, with variable length and depth. The key graphite resource in the Anuradhapura region is at Talawa (ibid.). Although there is no evidence to suggest that graphite was mined during the Iron Age or early historic periods, Paranavitana recorded finding crucibles with graphite residues during his excavations

at the Daladage in the Citadel of Anuradhapura (Paranavitana 1936: 3). Mica is found in association with marbles, gneisses and schists and is present in large quantities at Kebitigollewa to the northeast of Anuradhapura (Cooray 1984: 238). A relatively large deposit of apatite, a calcium phosphate mineral, occurs at Eppawala in the south of the study area associated with the weathered surface of a Precambrian carbonite intrusion (*ibid.*: 227). It is probable that this mineral was not exploited in earlier times. Clay is widely extracted around the town of Anuradhapura as a building material (*ibid.*: 221). These montmorillonite-kaolinite clays are coloured with a high proportion of iron minerals and have a low refractoriness. The clays are soft, highly plastic and easily worked, being used today to make bricks, tiles, stoneware and pipes. Such clays are also very suitable for the construction of wattle and daub structures (Coningham 1994b). At ASW2 the earliest finds of tiles occur in stratigraphic phase XXXI, the first bricks rather later in phase LXXIII, while finds of accidentally fired wattle and daub lumps in structural periods I and G suggest that such clays were also being utilized in an unaltered nature as early as the fourth century BC. Suitable clay deposits occur within alluvium, or as residual soils, the former being associated with the main river valleys, flood plains and tank beds (Cooray 1984: 219, 224).

The crystalline rocks of Sri Lanka are eminently suitable for use in construction as they possess both durability and strength (*ibid.*: 231-2). Marbles, especially the dolomite marbles of the Western Vijayan Complex and the Highland Series, have been extensively worked in the area owing to their attractive appearance and easy working. Granite, quartzite and garnetiferous gneiss have also been utilized. There are many partially worked outcrops within the vicinity of the city at the Abhayagiri, Isurumuniya and Vessagiriya viharas as well as at the Royal Baths and the Western monasteries; indeed, at the very base of the ASW2 sequence we located an outcrop of gneiss boulders oriented north-south (for further details see Chapter 5 below). Generally, it is accepted by archaeologists, art historians and architects that dolomite limestones were in use prior to granite and garnetiferous gneiss. Thus, at Sigiriya, limestone was in early use while semi-dressed and dressed gneiss only appears during the sixth century AD (Bandaranayake 1984: 15). Similarly, many of the earlier monuments and sculptures at Anuradhapura were of limestone, while scholars suggest that granite could only have been used once specific tools and techniques had been introduced during the Anuradhapura period (Wijesekera 1962: 179). The evidence from ASW2 suggests that limestones were indeed utilized for constructional purposes earlier than granite and garnetiferous gneiss. Limestone paving slabs were identified in stratigraphic phases LXXIX and LXXXV, dating to between the first century BC and the first century AD. Limestone saddlestones were also identified in three pillar

foundation pits belonging to stratigraphic phase LXIX, dating to the first century BC. The first use of dressed gneiss occurs in structural period F. This period's stone pillared hall was erected utilizing pillars of gneiss measuring 4.6 x 0.25 x 0.2 m and dates to between the third and seventh centuries AD. A smaller, but earlier utilization, a four-footed grinding stone of this material, was identified in a secondary role as a paving slab in stratigraphic phase LXXXV, which can be dated to the first century BC. This is, however, not the earliest working of such stones as substantial drip ledges were cut to prevent water flowing down the roof of caves for monastic use during the last centuries BC (Coningham 1995a), as well as being utilized as hammerstones, mullers and grindstones by prehistoric hunter-gatherer groups (Deraniyagala 1992: 271).

The island of Sri Lanka is renowned as one of the major producers of gemstones, and most of the gemfields are located in the southwest of the island in Ratnapura District and Sabaragamuwa Province (Cooray 1984: 241-9). The gemstones present are corundum (ruby, sapphire), beryl (aquamarine), chrysoberyl (alexandrite, cat's eye), spinel, topaz, tourmaline, garnet, zircon, quartz (amethyst, citrine) and feldspar (moonstone) (*ibid.*). Most gem material is recovered from gravels associated with old river deposits. These gems have been eroded and washed down from areas of crystalline metamorphic rock, surviving this process as a result of their superior hardness, their resistance to abrasion and their inert chemical nature. Examples of almost all these stones have been found in the ASW2 sequence, as detailed in Volume II (Chapter 8: Stone Objects). They are found in the form of unworked nodules, worked blanks and debitage as well as finished products. Finished products vary in form between beads and bangles to intaglios and ring stones. Other examples of semi-precious stones found in the sequence, but not endemic to the island, are lapis lazuli and carnelian. Much of the lapis lazuli found in South Asian archaeological sites was mined in Afghanistan, while the region of Gujarat in western India was one of the most productive sources for carnelian. The earliest examples of the former, two beads (special finds [sf] 17281 and 17474), were recovered from structural period J and date to between the sixth and fourth centuries BC. The earliest examples of the latter, again two beads (sf 10629 and 16821), from structural period I, date approximately to between the fourth and second centuries BC.

The island also has adequate resources of iron ores. Concentrations of slag in sizeable amounts in much of the Kandyan Highlands are indicative of the antiquity of iron-smelting and steel-making in the island (*ibid.*: 211-12). While there are large reserves of high-grade iron ore at depths of between 20 and 152 metres below the surface, several million tons of ore are easily available on the surface. These low-grade ores, either aggregates of hydrated ores such as limonite or ores of hematite, are found as lenses, pockets and irregular distributions close to the surface in weathered deposits

(ibid.). Hydrated iron ores are mainly found in Sabaragamuwa Province in the southwest of the island. More recently, in 1971, copper-magnetite ores covering an area of some ten square kilometres were found at Seruwila in the east of the island, close to Trincomalee (ibid.). It is unclear at present which sources were being utilized in antiquity, however recent excavations at Samanala-wewa have identified a potential third- to fourth-century BC smelting locus in the southwest of the island (Deraniyagala 1992: 733). Evidence of smithing has been recovered from the ASW2 sequence and is assessed in Volume II (Chapter 4: Metal-working Residues), although smelting must have occurred elsewhere, presumably outside the urban core.

2.3 Climate

The position of Sri Lanka as an island at the southern tip of India means that it has an oceanic climate which is still heavily influenced by the monsoons. There are no great fluctuations in temperature in the area around Anuradhapura, with a mean monthly minimum of 21–23 degrees C and a monthly maximum of 30 degrees C (Somasekaram 1988). Anuradhapura is located in the Dry Zone, where annual rainfall is under 2000 mm (ibid.). In general, rainfall increases to the south and east and decreases to the north and west, with strong local variations in precipitation. The coastal strip between Puttalam and Mannar is the driest in the country with an annual rainfall of 750 mm (ibid.). The north-central plains have strongly seasonal rainfall related to the monsoons. There are two dry seasons and two wet seasons at Anuradhapura. Between January and mid-February there is a short, mild dry period followed by a short wet period between mid-February and April related to the southwest monsoons being weakened by the Central Highlands. The main dry season between April and July is accompanied by strong, dry southwesterly winds known as the Kachchan. The main wet season is between August and December and is related to the northeast monsoons.

2.4 Drainage and relief

The area surrounding Anuradhapura is part of the northern lowlands and has a moderate relief, typically between 50 and 400 m above sea level. The land surface rises from west to east, with the region surrounding Anuradhapura and to the west being under 100 m and the eastern area being 100 to 500 m. The highest point in the area is Ritigala, which has an elevation of 766 m. Drainage in the region is dominated by the key river systems, the Kala Oya, the Modaragam Aru and the Malvatu Oya, all of which discharge westwards into the Gulf of Mannar. The annual rainfall in the region is between 1000 and 1500 mm (Somasekaram 1988). As the underlying crystalline rocks have a low porosity of between 0.2 and 0.8 percent, heavy run-off is promoted at an estimated 38 percent of all the water falling in the Dry Zone (Cooray

1984: 256). In addition, most of the rivers of the Dry Zone are non-perennial; only the Mahaweli Ganga river, which drains a large area of the Central Highlands, has a continuous flow. In 1994 we carried out a series of auger cores across the site and have now constructed a macro-stratigraphy suggesting that the settlement was founded on a rise of bedrock and gravel standing above the Malvatu Oya's flood plain, ensuring an element of defensiveness combined with a location above seasonal flood waters.

In such a region, where rainfall is limited to between October and February and where there is a water deficit for much of the rest of the year, the natural and artificial storage of water is of great importance. Natural water storage is in a variety of forms from aquifers and rock 'cisterns' to natural pools known as *villus*. The natural storage of water in aquifers and other favourable geological structures is limited throughout Sri Lanka, with the laterites, Pleistocene gravels, alluvium, regosols and Miocene limestones being the key exceptions (ibid.). Around the Anuradhapura region discrete bands of fractured rock act as localized aquifers. Approximately ten percent of the rainfall in the Dry Zone seeps into the ground to be stored in aquifers, where it can be reached by wells. These wells are sunk, usually in weathered rock, to tap shallow aquifers at depths ranging from 3 to 12 metres. However, such wells are seldom found in the Dry Zone, where shallow aquifers dry up during the long dry season. For this reason, even today, many wells are located below the bunds of village tanks and reservoirs or by the sides of irrigation canals to benefit from the stored waters there (ibid.: 257). In the extreme south of the study area there are a handful of cold springs, with water emerging from the fissured quartzites, with rates of 225,000 to 900,000 litres per day. Additional supplies can be found in natural 'cisterns' within outcrops of gneiss boulders, but these are usually very limited in nature (Coningham and Allchin 1995), or in the natural clay-lined pools or *villus* in the western part of the study region (Deraniyagala 1992: 372). The latter, however, are small in size, the largest covering only some two acres (Parker 1909: 360).

The artificial storage of water, therefore, is necessary for any substantial domestic and agricultural use. Such storage has occurred in the Anuradhapura region in two forms: firstly, the storage of water by damming river valleys; and secondly, diversion of water from one area to another by the use of annicuts and channels (ibid.). The Citadel and monastic complex at the heart of the region is also the location of four major reservoirs or tanks: the Bulankulam, the Basavakkulam, the Tissavava and the Nuvaravava (see Figs 21–23 below). All are formed by dams or bunds across undulating land and contain unequal bodies of water. The Bulankulam covers some 32 hectares, the Basavakkulam 91 hectares, the Tissavava 160 hectares and the Nuvaravava 1288 hectares (Parker 1909: 360–400). These tanks were in turn fed by the Malvatu Oya, itself dammed and regulated by the Nachchaduva

tank, and the Jaya Ganga, a channel cut running from the Kalavava tank (Brohier 1934: II, 16). The latter, formed by a bund thrown across the Dambulla and Mirisgani Oyas, is one of the largest tanks in the province, covering some seven square miles, and includes run-off from the Matale Hills in the south in its watershed (ibid.: 4).

In terms of the chronological development of this system of water management, most reliance – in the absence of excavations – has had to be placed on textual sources and inscriptions. The *Mahavamsa* states that, when Anuradhapura was first founded by the minister Anuradha, it was located close to the banks of the river (*Mvs.* vii. 43–44), evidently the main source of water. The earliest reference to the artificial storage of water occurs when Prince Anuradha, King Pandukabhaya's great-uncle, built a tank (*Mvs.* ix. 11). Pandukabhaya, the founder of the city of Anuradhapura, is recorded to have further developed this system by deepening a natural pond – the Jayavapi – and by constructing a new tank to the west of the city – the Abhayavapi (*Mvs.* ix. 10, 59–60). While the Abhayavapi has been identified as the Basavakkulam, the Jayavapi's identity is still uncertain, although it may perhaps be the Tissavava (Parker 1909: 361). Parker has also suggested that the Tissavava was enlarged in the third century BC by King Devanampiya Tissa (ibid.: 364), while Brohier has argued that the Nuvaravava was constructed in the first century BC (Brohier 1934: vol. II, map 8). The next stage was the construction of channels and bunds upstream to further manipulate the water resources. The Jaya Ganga channel was cut c. AD 459–79 to divert water from the Kalavava, also constructed at this time, to the Tissavava and Basavakkulam (ibid.). The last phase was the construction of the Nachchaduva tank in c. AD 866–901, which was fed by both the Jaya Ganga, via the Yoda Ela, and the Malvatu Oya itself. This tank regulated the flow of the Malvatu Oya and also fed directly into the Nuvaravava (ibid.).

In addition to these more major works there are just under 3000 village tanks within the province (Brohier 1934: vol. II, 2), underlining the inescapable importance of artificial water storage in the study area. Partial drought, absolute drought and dry spells are common, with any failure of the northeast monsoon seriously affecting the availability of surface water in the Dry Zone. The unpredictable nature of the rainfall has greatly affected local agricultural practices. The intense management of water resources has been a priority for the last 2000 years, creating an elaborate irrigation system – the use of village tanks being a key part. Flooding resulting from unpredictable rainfall is another problem in the Dry Zone, with flash flooding occurring after short periods of intense precipitation. In December 1887, 805 mm of rain fell in 24 hours at Nedunkerni near Vavuniya, while in three days over Christmas 1957 a total of 1240 mm of rainfall was recorded at Habarana, 50 km southeast of Anuradhapura (ibid.). The floods that followed the

1978 cyclone caused serious damage to the island, affecting a million people, including those of the Anuradhapura area. Historically, therefore, embankments and bunds have been constructed to control floods in populated areas as well as to store water for domestic, livestock and agricultural uses.

2.5 Flora

Sri Lanka has a wide range of natural vegetation types with 11 key flora types recognized, containing 4000 species. Each of these, except tropical savannah, grassland and mangrove, are true forests peculiar to a particular climatic zone (dry, intermediate and wet zones): tropical thorn forest, dry evergreen forest, moist deciduous forest, moist semi-evergreen forest, wet semi-evergreen forest, tropical savannah, tropical wet evergreen forest, sub-montane evergreen forest, montane temperate forest, grassland and mangrove (Somasekaram 1988).

To the west of Anuradhapura the vegetation becomes dry evergreen forest, which merges into tropical thorn forest along the coast north of Puttalam. The dry evergreen forest occurs in the Dry Zone, where annual precipitation varies between 1250 and 1900 mm, with rainfall concentrated in October to January, and with a long dry period from June to September. This vegetation type is restricted to the drier areas of the Dry Zone, and trees are usually under 12 m tall but may reach 20 m in favourable areas. The main tree type is *Manilkara hexandra* (Palu). Along the coast between Puttalam and Mannar, in the driest part of the island, tropical thorn forest has developed. The precipitation in this area is below 1250 mm per annum and is mainly associated with the northeast monsoon. Hence the area experiences four to seven months of partial drought from March to September. The vegetation comprises open thorny scrub with isolated trees and small woods. The main species forming the scrub are *Carissa spinarum* (Heen Karamba), *Zizphus spp.* (Eraminiya), *Acacia chundra*, *A. Leucophloea*, *A. planiformis* (Maha Andara) and *Dichrostachys cinerea* (Andara). *Salvadora persica* (Malithan) and *Manilkara hexandra* (Palu) form the woods and isolated trees. Mangrove swamps are found in certain areas along this coastal stretch. The natural vegetation of the Anuradhapura region is moist deciduous forest, of which 60 percent has been removed to provide agricultural land. This is the most widespread natural plant community in the Dry Zone. A characteristic feature of this forest type is the presence of emergent dominants, which rise up to 3 m above the general canopy level. Most of the emergents are such deciduous species as *Chloroxylon swietenia* (Burutha), *Vitex dinnata* (Milla), *Sapium insigne* (Thel Kaduru), *Grewia polygama* (Bora Deminiya), *Berrya cordifolia* (Hal Milla), *Adina cordifolia* (Kon) and *Pterospermum canescens* (Velang). Common evergreen emergents are *Manilkara hexandra* (Palu), *Alseodaphne semicarpifolia* (Wewarana) and *Diospyros ebenum* (Kaluwara). The main canopy has a height of 20–25 m and consists of evergreen species of which *Drypetes*

seplaria (Weera) is the most common. It is this species, more than any other, that gives the forest its evergreen appearance. The moist deciduous forest is basically of very mixed composition, locally reflecting the different soils, geology, geomorphology and human interference.

These forests are essentially secondary forests that developed in the last 400 to 500 years after the collapse of the extensive agricultural societies that existed in the region from the fourth century BC to the twelfth century AD, as indicated by the proliferation of irrigation tanks in the area. The botanical samples from the ASW2 sequence have allowed us to partially reconstruct the natural and cultivated vegetation in the vicinity of the city prior to this collapse (see also Volume II, Chapter 12: Botanical Remains). Although our evidence of cultivated crops is restricted to finds of rice and finger millet, we have identified the presence of bamboo and coconut as well as both hardwoods and softwoods. It is interesting to note that there is no apparent restriction in the use of these latter two, which were found in contexts suggesting functions as both a structural element and as fuel. In carrying out our analysis we have also been able to identify at least one species, *Lumnitzera racemosa*, which is not endemic to the Anuradhapura study area. The presence of this mangrove wood in stratigraphic phases XXIV and LXV, dating to between the second and fourth centuries BC, suggests that conscious decisions were made to select and transport this wood over 60 km into the interior of the island. The reasons for such a selection are not altogether clear but may be connected with the apparent immunity to termites that this wood possesses, making it a very suitable structural timber.

2.6 Fauna

Sri Lanka has a very rich and diverse fauna with 625 species of land vertebrates, including 400 species of bird, while 1000 species of fish swim around the coasts, in rivers and lakes. The main exploitable fauna of the region comprises the following: monkey, pig, chevrotain, muntjac, spotted deer, sambhur, water buffalo, elephant, scaly ant-eater, giant squirrel, porcupine, bandicoot rat, black-naped hare, jackal, sloth bear, leopard, land monitor lizard, water monitor lizard, soft-shelled terrapin, hard-shelled terrapin, star tortoise, Ceylon python and crocodile (Deraniyagala 1992: 508). Although many of the above now only occur in restricted reserves and sanctuaries, it is expected that they enjoyed a wide distribution within the study region in the past. With the exception of the scaly ant-eater, giant squirrel, sloth bear and leopard, all of them were present within ASW2's faunal assemblage (see Volume II, Chapter 10: Faunal Remains). They were, of course, augmented by the presence of such domesticated species as cattle, horse and goat. The horse is not endemic within the island, and its presence in stratigraphic phase XXIII indicates its importation to Sri Lanka as early as the fourth century BC. One might have expected that the majority of the faunal assemblage from this urban site would

have been domesticated, helping to ensure supply, however only one of the four most highly represented species, which collectively accounted for 90 percent of the entire faunal assemblage, can be clearly attributed to such a category. This species is cattle, which accounts for 31 percent of the four species, while pig, which may include both domestic and wild variants, accounts for a further 21 percent. It is interesting to note that the highest percentage, 33 percent, is attributed to the Ceylon spotted deer, while a further 17 percent is attributed to the freshwater corrugated clam. The former is noted by Deraniyagala (1992: 376) as

... the most abundant game animal in the entirety of the Dry Zone ... Prominent among the factors that makes the hunting of spotted deer relatively productive is their pattern of grouping: the animals tend to be gregarious.

The presence of the freshwater clam illustrates the flexibility of the exploitable biomass in the study area. The provision of artificial water reserves, both tanks and flooded paddy land, creates ideal habitats for freshwater species such as fish, reptiles, snails and bivalves which, if not domesticated, can to an extent be farmed! This biomass is augmented by that of neighbouring areas or zones, as indicated by the presence of marine species such as whale, sea cow, turtle and shellfish. Evidently many of the latter cannot have been brought inland to the site for meat but rather proved an additional raw resource. It is interesting to note that a number of this marine group were found within the lower part of the sequence in stratigraphic phase XVIII, suggesting close links between the coast and this inland site between the sixth and fifth centuries BC. However, the presence of any of these species within the sequence at ASW2 does not necessarily indicate that they formed part of the subsistence strategy, rather it shows that such species were part of a very broad-based exploitative strategy.

2.7 Soils

In the Anuradhapura region the main soil types are reddish-brown earths, low humic gley soils and various alluvial soils, with localized areas of exposed rock and erosional remnants (Cooray 1984: 291; Deraniyagala 1992: 449-503). The reddish-brown earths are found throughout the region and are moderately fine-textured soils with good to imperfect drainage (Epitawatte 1990: 44). Typically they occupy the crests, upper and mid slopes of the undulating topography. These soils are suitable for subsidiary food crops, with irrigation in the dry season or without irrigation in the wet season. Low humic gley soils are also found throughout the region but are poorly drained, moderately fine to fine-textured soils developing at the base of slopes and in valley bottoms (ibid.: 43). They are used extensively for rice cultivation, with or without irrigation. Alluvial soils are normally associated with the Makvaru Oya and Aruvi Aru valleys and come in a variety of colours from

white to reddish-brown, grey and black. They vary widely in nature from coarse river gravels to very fine clays, with excellent to poor drainage. They are associated with river systems, forming adjacent to rivers and streams, and over flood plains. The clay-rich alluvium is suitable for rice cultivation and the lighter sand-rich alluvium for subsidiary food crops (*ibid.*). Along the west coast between Puttalam and Mannar and extending up to 20 km inland, the main soil type is red-yellow latosols which form a flat, undulating land surface. These latosols occur on crests and mid-slopes, forming a layer 5 to 7 m deep. They are well drained, with a moderate to fine texture and a neutral to acidic nature. At the slope bottom yellow latosols develop. These are poorly drained and provide good agricultural land for intensive farming if irrigation can be provided.

Around Mannar and extending up the Modaragam Aru and Aruvi Aru valleys, solodized solonetz soils are developed. These are coarse dark grey to brown soils associated with recent calcareous marine sediments on flat-lying land. The subsoil is a fine-grained, grey alkaline soil which makes agriculture difficult without reclamation. Rock knobs, eroded land, erosion remnants, steep rocklands and lithosols cover localized areas of several square kilometres and are more or less infertile. As is demonstrated in Volume II (Chapter 12: Botanical Remains), other than charting the localities of paddy land and using modern soil exploitation patterns, it is still unclear which of the above soils were partially or fully exploited in antiquity.

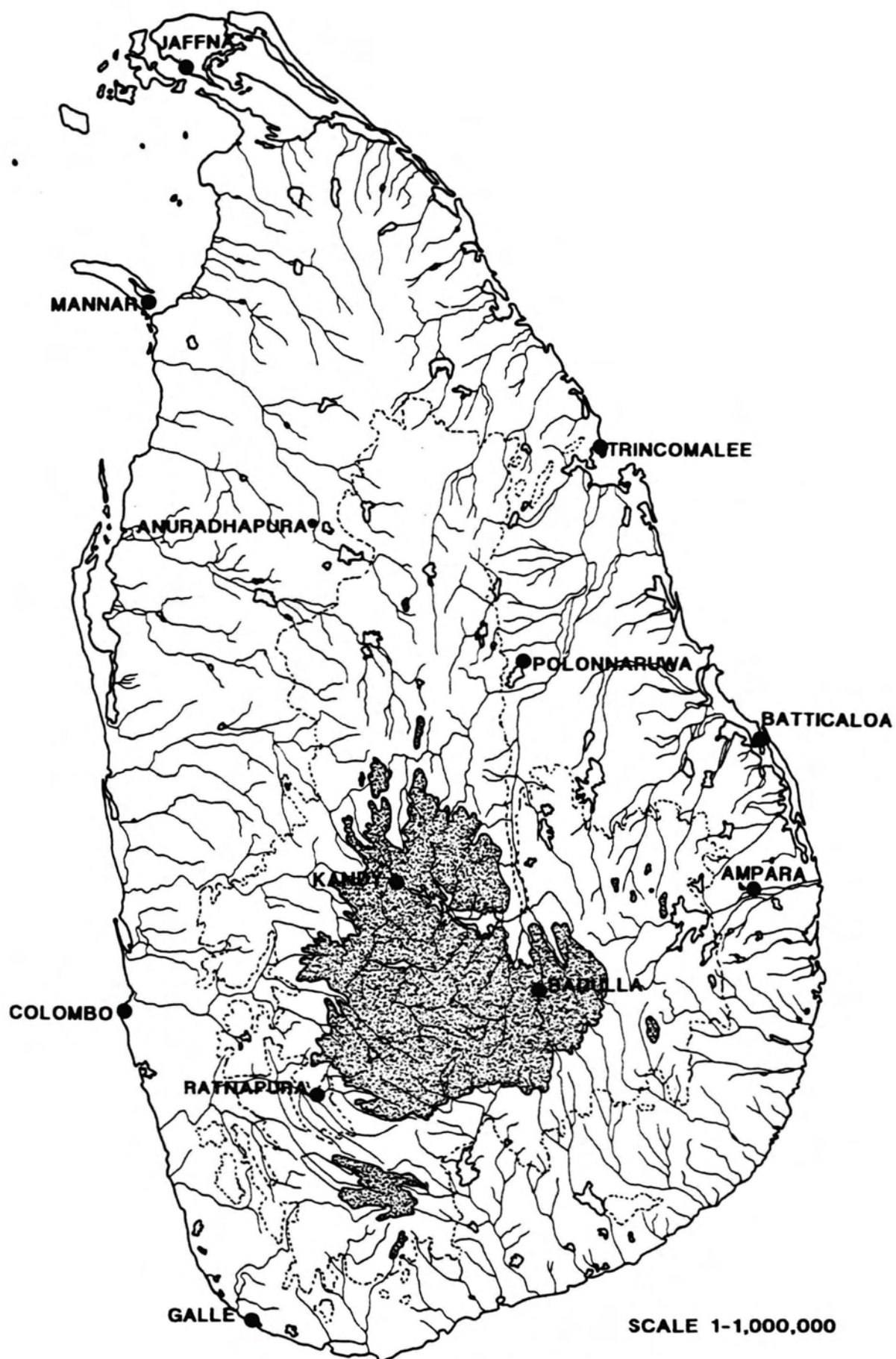


Fig. 4: Map showing Sri Lanka's topography and rainfall

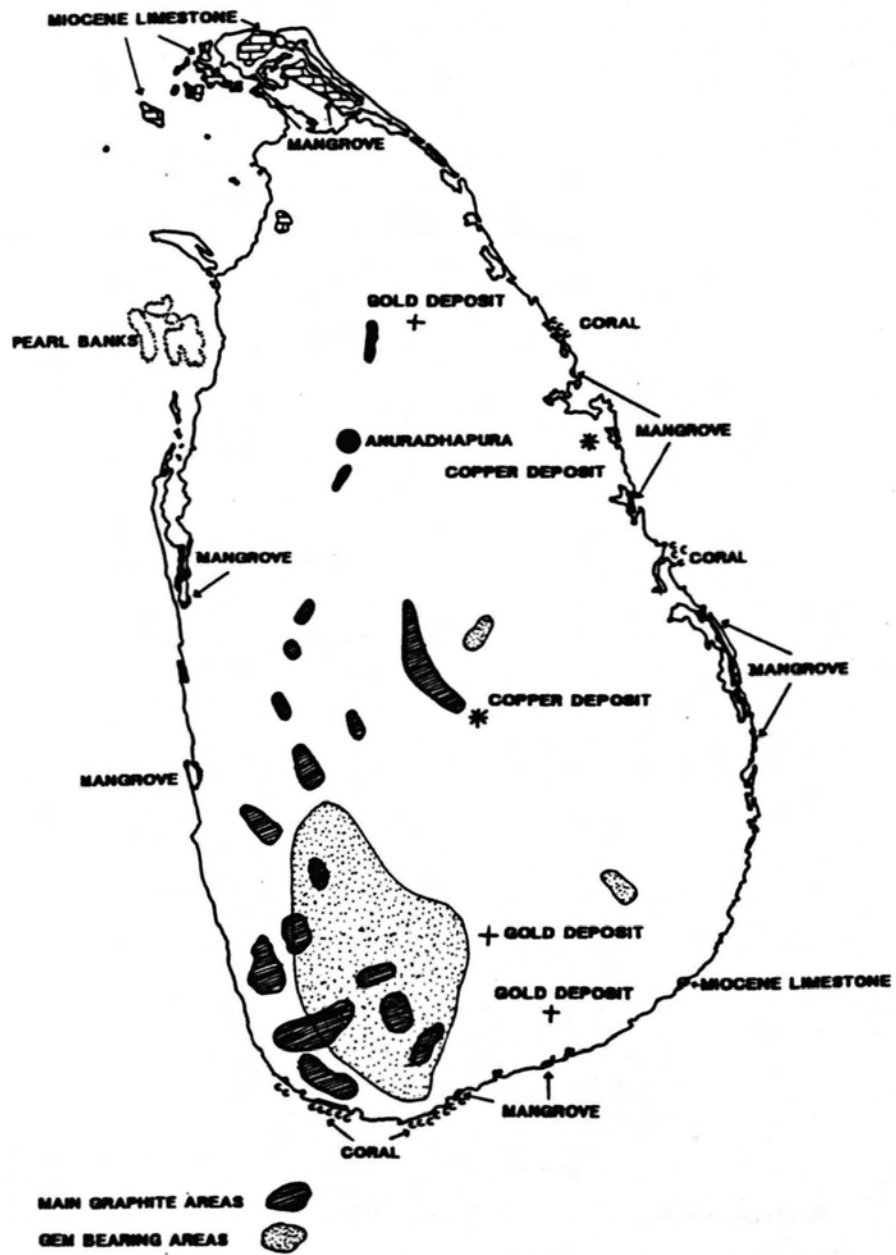


Fig. 5: Map showing Sri Lanka's raw materials

CHAPTER 3

THE CITY OF ANURADHAPURA

Robin Coningham

3.1 Introduction

As detailed in the preceding chapter, the city of Anuradhapura is located in the low, undulating plains of North Central Province on the western bank of the Malvatu Oya, close to a series of shallow valleys which have been utilized as tanks or reservoirs. While a number of scholars, most notably Wickremaratne, have suggested that either the Bodhi tree or the Mahathupa represent the central focus of the city (Wickremaratne 1987), others have identified the fortified urban core known as the Citadel as the axis (Deraniyagala 1972) (Fig. 6). Conversely, it is also possible to suggest that one could identify the primate monastic establishment, or viihara, as the sacred or ritual centre of the city. The latter identification, established by royal recognition and support, would provide a mobile centre-point, reflecting the movement of political and ritual ascendancy back and forth between the orthodox Mahavihara and the heterodox Abhayagiri and Jetavana viharas (Geiger 1960: 209). It is also quite feasible to accept any one of these, or indeed all of them, as the central point of the city, reflecting the various overlapping aspects of power, authority and legitimization contained within the entire complex. For the purposes of this chapter, however, we have decided to accept Seneviratna's fourfold division, which identifies the Citadel as the centre of the settlement (Seneviratna 1994: 82) (Fig. 7). The centre of Seneviratna's city is the fortified Citadel or inner city, which is surrounded by a zone of large monastic establishments. This monastic zone is in turn surrounded by an outer zone of villages and tanks, which is itself surrounded by the outermost zone, a zone of forest and hermitages (*ibid.*). Before commencing a description of these various zones we offer a summary of the history of archaeological research at the site in order to establish the research aims and questions which were the prime reason for the excavations at ASW2 to be undertaken – and indeed funded!

3.2 History of archaeological research

Although it was abandoned as a capital in AD 1017 by Mahinda V (*r.* 982–1029) in the face of increasing pressure from southern Indian polities, the city of Anuradhapura was never fully forgotten before its 'rediscovery' by the first British administrators of the region. Indeed, the Citadel's archaeological sequence suggests that Islamic and Chinese glazed wares were still being imported in sizeable quantities in the thirteenth century, two and a half centuries later (see Volume II, Chapter 5: Glazed Ceramics). This evidence

appears to be supported by the Pali chronicles, which record that a number of later dynamic kings extended their rule to the old Sinhala homeland, the Rajaratta. King Vijayabahu I (*r.* AD 1055–1110) retook Anuradhapura from the Cholas and briefly occupied it (*Cvs.*lviii.59); Parakramabahu I (*r.* 1153–86) again retook the city and had it restored (*Cvs.*xxiv.1–14); King Parakramabahu II (*r.* 1236–70) began the restoration of the Mahathupa (*Cvs.*xxxvii.66), which his successor, Vijayabahu IV (*r.* 1270–72), completed (*Cvs.*xxxviii.83). The latter placed the protection of the complex in the charge of the Vanni kings (*Cvs.*xxxviii.89), suggesting that the central authority was itself too weak at the time to guarantee the region's safety. The city was not mentioned again in the chronicles until the eighteenth century, when it reappeared as an important royal pilgrimage site. This re-emergence coincides with the absorption of the Tamil kingdom of Jaffna and the Vanni chiefdoms by the Portuguese and Dutch, suggesting that the later Kandyan kings took advantage of this power vacuum. The Kandyan kings Narendra Simha (Narindasiha; *r.* 1707–39) (*Cvs.*xcvii.33), Vijaya Rajasimha (Vijayarajasiha; *r.* 1739–47) (*Cvs.*xcviii.85) and Kirti Sri Rajasimha (Kittisirirajasiha; *r.* 1747–82) (*Cvs.*xcix.36) all visited Anuradhapura and made offerings at the various monuments. Indeed, when Robert Knox passed through the town during his escape from Kandy in 1679 he recorded that it was important enough to have its own governor, who paid allegiance to the Kandyan king (Knox 1911: 232). Although the area, scattered with stone ruins, was still known as 'Anarodgburro', the character of the inhabitants appears to have changed greatly in that none that Knox met spoke or understood Sinhalese (*ibid.*). Under Kandyan rule the governor of this small jungle settlement was known as Nuvaravanniya, 'Vanni of the City' (Dewaraja 1988: 237), illustrating knowledge of the history of the site despite the fact that it had been reduced to a small settlement in the jungle.

Archaeological research at Anuradhapura can broadly be divided into two main phases: first, the identification of the historical topography of the city, and the clearance and restoration of recognizable monumental structures; and second, the designation of problem-oriented excavation and survey.

The first phase can be dated to between the last two decades of the nineteenth century and the year 1957. It encompasses attempts to transfer topographical descriptions of translations of the *Mahavamsa*, available since its first translation in 1837, onto the numerous

ruins surrounding the new provincial headquarters established at Anuradhapura in 1873. Accordingly, a number of the major features were identified almost immediately owing to their immense size in combination with topographical descriptions from the *Mahavamsa*, inscriptions and the presence of a number of monuments, such as the sacred Bodhi tree, which were still venerated. The dry Basavakkulam was, for example, identified as the Abhaya tank built by King Pandukabhaya through the assistance of a reference in the *Mahavamsa* to the position of the tank to the east of the city (*Mvs.x.84*) in combination with the discovery, close to the tank, of a tenth-century AD inscription prohibiting fishing at a tank of that name (Parker 1909: 360). Similarly, the largely dry tank to the south of the ruins of Anuradhapura known as the Tissavaya was confirmed as the ancient tank of that name, originally constructed by King Devanampiya Tissa (*r. 250–210 BC*), by its presence to the southwest of the Mirisavati stupa as recorded in the *Mahavamsa* (*Mvs.xxvi*). Thus, by the time that Anuradhapura was established as a major pilgrimage and tourist centre, the visitor was provided with guidebooks which switched back and forth between the *Mahavamsa* and *Culavamsa* and the restored ruins among the dwindling jungle. Henry Cave therefore begins the chapter on Anuradhapura in his book *The Ruined Cities of Ceylon* with a tour of the religious monuments built by King Devanampiya Tissa, including the Thuparama, the Bodhi tree, the Isurumuniya vihara and the Brazen Palace (Cave 1907). Mitton's *Lost Cities of Ceylon* used a similar identification and even provided a map to identify the major monuments (Mitton 1917: 72).

Not all of these early identifications were successful, and a number were quickly refuted. One of the most drastic misidentifications was the attribution of the Abhayagiri vihara to a stupa and monastery on the eastern side of the city, and the Jetavana vihara to the stupa and monastic remains on the north of the city. Only in 1924 was the misidentification fully reversed, although as early as 1888 there had been suggestions that this should be done (Hocart 1924: 10–14). A further example is afforded by Ayrton's identification of a structure comprising a series of monumental stone pillars close to the Lankarama as the 'Elephant Stables', the building where Mahinda first preached to the townsfolk of Anuradhapura (*Mvs.xiv.61–64*). The structure was first excavated by Burrows between 1884 and 1886 in order to 'test the truth of the local nomenclature' (Burrows 1886: 3). A new hypothesis was then put forward suggesting that the monument was one of the most important ecclesiastical buildings in the Abhayagiri vihara – the Ratanpasada – rather than a stable for elephants (Hocart 1924: 1). Ayrton also worked on the clearance of a number of monastic structures with double platforms close to the old Arippu road, which were referred to in guidebooks as the Western monasteries. He believed that they were the residences of a strict ascetic sect of monks known as Pansukulika, who came to prominence in the chronicles

in the eighth to tenth centuries AD (Hocart 1924: 45–6). Often even the identifiers of such sites were not completely convinced. Thus Wickremasinghe (1912a: 11) states: 'As to the identification of this site with that of the Vessagiri Vihara, stated to have been built by King Devanampiya Tissa in the third century BC, we have only tradition'. In addition, there are some monuments that have never been identified among the ruins, the Pathama ceitiya, for example, which was raised over the cremated remains of Mahinda (*Mvs.xx*).

It was also during this period of archaeological development that the first chronological techniques were being investigated. Thus Parker started his study into 'the archaeological value of bricks' by demonstrating that it was possible to attribute broad chronological bands to certain sizes of brick (Parker 1909: 209–20), and soon afterwards Codrington prepared the first comprehensive numismatic sequence for the island (Codrington 1924). The clearance of sites for their identification with monuments mentioned in the chronicles therefore continued at Anuradhapura until 1957, when the first scientific, research-oriented excavation was carried out. This phase of archaeology should not be treated lightly, as might be the temptation, since it represented an essential foundation stage for the development of techniques and methods and was carried out under extreme conditions in 'terra incognita' as the following quotation illustrates (Karunaratne 1990: 7):

Exploration commenced on July 15, 1890 with a gang of twenty coolies in charge of a Kangany, who had gained some experience in such work under Mr S.M. Burrows in 1886. Obviously it was undesirable, with the very limited labour force at command, to waste time in 'parking' the forest and jungle examined. Parallel lines were, therefore, run through each area from up to 40 and 60 feet apart, the undergrowth being cut and burnt on any ruins being met with so as to open them up for better examination.

The second phase of archaeological research at Anuradhapura began in 1957 with the excavations of P.E.P. Deraniyagala and P.C. Sestieri within the Citadel of Anuradhapura itself as part of a distinctive research strategy designed to discover the depth and antiquity of occupation at the site (Deraniyagala 1957; Sestieri 1958). This problem-oriented excavation replaced earlier haphazard clearances of surface ruins and can be divided into three distinct sub-phases.

The first sub-phase mirrors Sir Mortimer Wheeler's activities within the Indian subcontinent, that of excavating vertical trenches in order to construct a culture sequence for the investigated sites. Indeed, the research goal of Sestieri's work was clear: 'A commencement has been made in 1957 to work out the archaeological pottery sequence for Ceylon and levels at Anuradhapura near the Gedige were investigated' (Sestieri 1958). Deraniyagala and Sestieri's trench

differed from Paranavitana's work of 24 years earlier in that, while Paranavitana cleaned and cleared floors of monumental structures encountered, the former cut through them in order to examine the sequence below.

This foundation work was then developed into a second sub-phase which began in 1969 with the excavation conducted by Codrington and S.U. Deraniyagala (Codrington 1969; Deraniyagala 1972). Four sondages were cut into the base of Sestieri and Deraniyagala's trench and excavated contextually down to bedrock at a depth of 7.6 m (Fig. 8). By concentrating on depth, rather than the recovery of architectural remains, the excavation succeeded in providing a long cultural sequence for the site. The contextual excavation thus provided the first collection of provenanced artefacts for a cultural sequence stretching for over a millennium, amply illustrated and tabulated in Deraniyagala's 1972 publication. In answering the research question 'When was the Citadel first settled?', the excavation provided a series of fresh archaeological questions such as 'When did the settlement first become an urban site?'; 'What subsistence strategies supported the population?'; and 'Was the urban development at the site part of the north Indian urban florescence or was it a later diffused development?'.

The Archaeological Survey Department continued to clear and conserve areas of the Citadel, Godakumbura excavated the southern gate in 1960 (Godakumbura 1961) and Silva excavated the eastern city gate in 1975 (Coningham 1993, 1994c), but in 1984 the Anuradhapura Citadel Archaeological Project (ACAP) was established, with S.U. Deraniyagala as Director, in order to further develop the research questions raised by Codrington and Deraniyagala's 1969 excavation at the Gedige. Since that date the project team has excavated a total of fourteen sondages at various localities within the Citadel in order to trace the development of the site over time (Fig. 9). As a small sondage was unlikely to produce an adequate structural or artefactual sequence for the site, a British sub-project was invited to excavate a 100 metre square trench in the centre of the site, adjacent to sondage ASW1 (Pl. Ib). The open-area excavation at trench ASW2, using the context system, was hoped to produce structures as well as artefacts in order to present a fuller anatomy of the prime early urban complex in Sri Lanka. The present volume is the report of these excavations.

Having briefly outlined the general trends of the development of archaeology at Anuradhapura, it is now necessary to introduce the four concentric zones of the city as identified by Seneviratna (Seneviratna 1994: 82). For further information about the development of archaeology within Anuradhapura and the island as a whole, please refer to works by Karunaratne (1990) and Bell and Bell (1993).

3.3 The Citadel zone

The Citadel represents Seneviratna's innermost zone and is defined by a surrounding fortification consisting of an

eroded rampart and a silted moat (Coningham 1993, 1994a) (Fig. 10). Although textual descriptions of the Citadel had been available from 1837 following the publication of George Turnour's translation of the Pali text, the *Mahavamsa* (Guruge 1989: 11), the secular centre of the monastic complex of Anuradhapura was not successfully identified until the early twentieth century, when Parker traced the southern city wall through a combination of surface observations and the *Mahavamsa*'s historical topography (Parker 1909: 274; Coningham 1993b). Following the identification of the Citadel, a series of trial excavations were carried out by the first Archaeological Commissioner, Bell, who cleared and investigated surface features. In 1897 he had cleared a stone pillared structure which he interpreted as an audience hall but which was later named the Tooth Relic temple or Daladage (Hocart 1924: 48-9). This work was continued in 1898 (Karunaratne 1990: 24). Bell's successor, Ayrton, later identified their specific names and functions with the help of the Pali chronicles and hypothesized that they were the sites of the royal palace, the almshouse and the Temple of the Tooth (Ayrton 1924: 49). Ayrton also excavated a street in the north of the Citadel and found house foundations close to the surface on its eastern edge, but he died before this work could be published (Hocart 1924: vii) (Fig. 11). These buildings were constructed from re-used bricks and ashlar elements and were dated to the sixteenth century AD on the grounds that a stone with an inscribed cross had been found within one of the excavated rooms. However, Hocart later noted that it might be earlier, as Nestorian communities were present within South Asia as early as the sixth century AD (Hocart 1924: 52). Furthermore, the cross is a symbol which is not the prerogative of Christian symbolism as it frequently occurs in pre-Christian Brahmi non-scriptural graffiti. As a 'fragment of the base of a white porcelain vase' was recovered from another room, it is possible that some of the debris within the houses dates to the early Islamic period, as suggested by finds of other glazed ceramics at ASW2 (see Volume II, Chapter 5: Glazed Ceramics) and the remains of buildings constructed of re-used material (see Chapter 5 below). Note was also made of a two-storeyed brick-built structure of unknown function called the Gedige, which was first recorded by Burrows (Hocart 1924: 49), and the remains of a large stone vihara in the north of the site (ibid.: 51).

Following a gap of 15 years, excavations at the Citadel recommenced under the direction of Paranavitana (Paranavitana 1936). Concentrating in an area just to the south of the centre of the site he successfully exposed six important large monuments. One of the most spectacular results of Paranavitana's excavation was the confirmation of Ayrton's identification of the royal almshouse or Mahapali. In 1897 Bell cleared the vegetation surrounding a 'stone-canoe' which was exposed on the surface within the Citadel (ibid.: 25). Ayrton later examined the canoe and assumed that it was an example of what the Pali

chronicles referred to as 'stone boats for gruel'; he then corroborated this evidence with various descriptions of the central location of the Mahapali and concluded that he had found the Mahapali (Hocart 1924: 50). The canoe was a stone trough measuring 8.4 x 1.6 m and formed by four ashlar slabs. On excavating its immediate surroundings Paranavitana revealed that the trough lay at the western end of a substantial building measuring some 39 x 36.5 m, delineated by a brick and ashlar foundation wall and containing the stumps of 33 pillars (Paranavitana 1936: 26). Unfortunately, the building, buried under 2.6 m of overburden, had been subject to substantial robbing, removing any evidence of internal partitions or doorways (Pl. IIa). An 8 m deep well was excavated on the structure's northwest corner (ibid.: 28). Excavations below the building's foundations revealed a sequence of other structures following the same alignment; however, apart from attributing a date of the tenth century AD to the exposed upper structures, no further postulations were made as to the age of the underlying structures (ibid.: 27). Paranavitana succeeded in exposing a larger structure to the immediate east of the Mahapali or almshouse which had also been examined in 1897 by Bell (ibid.: 14) and later identified as the Temple of the Tooth, or Daladage, since a nearby inscription referred to a temple of that name (Hocart 1924: 50). Here Paranavitana excavated and identified a substantial complex of four buildings contained within a large, cardinally oriented brick enclosure measuring 65 x 60 m (Paranavitana 1936: 14-20). The enclosure had a single entrance on the northern side through a large porch 3 m wide and 14.6 m long. A structure measuring 50 x 51 m was exposed in the enclosure's northwest corner, and the remains of a similar building were identified in the northeast corner. A further structure, measuring 13.7 x 23.3 m and defined by brick and stone foundations, was located to the south of these two buildings. The southern building's superstructure had been supported on a framework of ashlar pillars 4.7 m high, of which 40 still remained. Paranavitana identified a series of phases of construction ranging from the fourth century AD to the tenth (ibid.: 19) and, as to its identification as the Tooth Relic temple, he suggested that it was reasonable to continue to accept Ayrton's identification until 'more decisive evidence is forthcoming to disprove his hypothesis' (ibid.: 20).

Paranavitana also excavated a further series of structures between this complex and the Gedige in an area where the tops of a number of stone pillars were exposed (ibid.: 3). In this location he exposed the remains of three buildings, A, B and C, within a badly damaged enclosure wall (ibid.: 4-8). Building C was identified as the enclosure's northern gatehouse and stood some 10 m north of a shrine, Building A, which possessed a very similar ground plan to that of the building known as the Gedige (ibid.). Building A consisted of a cruciform cella, with projections, measuring 10.2 m square, with an entrance porch and door to the north (ibid.). The doorway led to an inner

sanctum measuring 4 m square, separated from the outer cella by a circumambulatory passageway 1 m wide. A platform or altar measuring 2.4 m square stood at the centre of the inner sanctum (ibid.). The third structure excavated, Building B, stood less than 2.5 m to the northwest of this shrine and measured 15 m square, defined by brick foundations. The stumps of 20 ashlar pillars, some of which were 3.7 m in length, were exposed – all that remained of an estimated 40 from the original plan (ibid.: 4). Paranavitana attributed dates of the eighth century to these structures (ibid.: 7) and suggested that they may have made up part of 'one of the religious edifices which were located within the limits of the royal palace' (ibid.: 13).

In parallel with the clearance and identification of stone and brick-built structures using chronicles and inscriptions, Hocart began the first formal evaluation of the city's layout, which he published in two articles on town planning (Hocart 1928, 1930). He complained of a lack of structural remains, which led him to believe that only the king and monks had used durable building materials. He did note, however, that the few visible streets that had been excavated all ran north-south and east-west (Hocart 1928: 151). By drawing inferences from later, better preserved Sri Lankan capitals he suggested a formula to which such cities conformed: that the proper shape of a city was a square; that the streets ran north-south and east-west; and that the king's palace was located in the eastern part of the city. He concluded that the 'doctrine of the four quarters ... has had a considerable influence on the planning of cities' (ibid.: 156). In his next article Hocart further pursued the underlying concepts behind the Sinhalese urban pattern. He supported his analysis by comparing Kautilya's *Arthashastra* with this formula. In this Sanskrit text, widely believed to have been compiled in the third century BC with some exceptions (Trautman 1971), Kautilya advocated that cities should be square, that streets should be laid out cardinally, and that the palace should be located in the east or the north (Hocart 1930: 86). Hocart concluded that, in layout, the cities and moated monasteries of Sri Lanka were essentially the same and that they owed this to the fact that they came from the same original model (ibid.: 88). Hocart's initial hypothesis has been accepted and developed by a number of scholars (Wheatley 1971: 256; Hettiaratchi 1988: 190). One of the most recent, Wickremaratne, has argued that Anuradhapura was specifically constructed as 'the essence of the cosmic mandala' (Wickremaratne 1987: 45).

This claim that Anuradhapura as a city 'was no casual cluster of buildings but a cosmography that reflected the universe' (ibid.: 45) appears to be supported by both textual and archaeological evidence. The site is unique in Sri Lankan history, having been founded three times. The first was the reputed foundation of Anuradhapura by one of King Vijaya's ministers, Anuradha, soon after the conquest of the island (*Mvs.vii.43*). The second foundation was when one of the northern Indian brothers of Queen

Subhaddakaccana, Prince Anuradha, chose to live at the site and built a tank and palace close by (*Mvs.*ix.11). The third, and most descriptive, was the foundation of the site as the Sinhalese royal capital by King Pandukabhaya following the defeat of his uncles. He kept its name because it had served as a dwelling for two Anuradhas and had been founded under the constellation of Anuradha (*Mvs.*x.77). The city that he founded appears in the chronicles as a planned city, not only spatially but also socially. The *Mahavamsa* records that he founded the city on the site of the existing village and describes the plan in detail (*Mvs.*x). Four *Yakkhas*, or spirits, were located in the city, one in the east, one in the west near the Abhayawewa, one at the south gate and one within the royal compound (*Mvs.*x.84–86). Four suburbs were built around the city, each outside one of the cardinal gates (*Mvs.*x.88). On the side of the western gate Pandukabhaya located the common cemetery, the execution place, the chapel of the western queen, the banyan tree of Vessavana (Kubera), the palmyra palm of the demon of maladies, the great house of sacrifice and the *yona* (foreigner) quarter (*Mvs.*x.89–90). He allocated *candalas* (scavengers) to clean the town and its sewers, to carry the dead and be cemetery keepers. They were housed in a separate settlement northwest of the cemetery (*Mvs.*x.91–3) and had their own cemetery, again northwest of the common cemetery. To the north of their cemetery he built a street for huntsmen (*Mvs.*x.95), and to their north he established dwellings, chapels and hermitages for Brahmins, various ascetics and religious people (*Mvs.*x.96–102). The foundation of the city is also briefly described in the *Rajavaliya*, a composite Pali chronicle which covers the island's history from the earliest times to the coming of the Europeans: 'he cleared a piece of ground, four gaw in length and the same in breadth, rooted out the trees, made streets, and constructed other works. He also built a rampart 16 gaw (in extent)' (*Raj.*22).

Hocart was most impressed by the similarities between the description of the city and the *Arthashastra's* description of an ideal city (Hocart 1930: 86). This theme can be further extended by a comparison of the two textual descriptions. The *Arthashastra* advocated the clearing of the site and its division into squares by the city boundaries and the various north-south and east-west roads (*Arth.*2.4.1). Following this division into a grid or mandala, the allocation of people and buildings within this grade is made. The placing of guardian deities at the side of each wall is advocated (*Arth.*2.4.18). It also appears from the *Mahavamsa* that Pandukabhaya's city conformed to this allocation (*Mvs.*x.84–8):

He settled the *Yakkha*, Kalavela, to the east of the city and the *Yakkha*, Cittaraja, below the abhaya-tank. The maid servant, who had helped him in his past and who was reborn a *Yakkhini*, the grateful king settled at the southern gate of the city. Within the royal precincts was housed

the mare-faced *Yakkhini*. Annually he made offerings to them.

Guruge interprets *Yakkhas* as aboriginal peoples and reads the king's epithet, *Yakkhabhuta-sahayava*, as 'he who had the friendship of the *Yakkhas* or aborigines' (Guruge 1989: 789). This epithet is rather reminiscent of that of King Tissa, Devanampiya or 'he who had the friendship of the gods'. It is possible to identify at least three of these *Yakkhas* as deities placed at the cardinal points of the city: Kalavela in the east, the *Yakkhini* in the south, and Cittaraja in the west beside the Abhaya tank. The allocation of such guardians at the four quarters was intended to strengthen the power and defence of the city. The *yona*, *yavana* or foreigner quarter was on the west of the city, outside the walls, presumably because foreigners were not of suitable origin to be allowed to live within the settlement itself. The settling of foreign merchants in separate areas is also advocated by Kautilya (*Arth.*2.4.16). The placing of the *candala* settlement on the outskirts of the common cemetery is again in direct agreement with the *Arthashastra* (*Arth.*2.4.23). Similarly, heretics were to be housed away from the settlement, on the outskirts of the common cemetery (*ibid.*), as had been done by King Pandukabhaya.

The extent and complexity of the spatial and social planning at Anuradhapura and its conformity with early Indian planning treatises may be explained by the presence of three specialists at the founding. Both Pandukabhaya and his chaplain, Canda, were instructed in their youth by the latter's father. This man, Panda, was a Brahmin 'rich and well-versed in the Vedas ... he taught him [the king] the art' (*Mvs.*x.18–23). The chronicle also records that Pandukabhaya 'had a soothsayer as well as a site specialist consulted and had an excellent city constructed' (*Mvs.*x.75). The presence of such specialists is not directly advocated by Kautilya for the founding of a city but is similarly described in his passage on the laying out of an army camp (*Arth.*10.1.1).

Whilst the above description may be referred to as fanciful, there is a strong physical architectural base at Anuradhapura to support many of Hocart's and Wickremaratne's claims (Hocart 1928, 1930; Wickremaratne 1987). Much of this evidence comes from the later periods of occupation at the site, because the earlier structural periods are buried under more than eight metres of deposits. According to the *Arthashastra*, the major temples were to be located in the centre of the city (*Arth.*2.3.17), the palace in the north (*Arth.*2.3.7) and the *kshatriyas*, or warrior *varna* (caste), in the east (*Arth.*2.3.9). Of the stone and brick structures excavated in the Citadel none has been identified as the royal palace. However, Bandaranayake has suggested that the building known as the Daladage can be identified as the royal palace and that the function of the Daladage, or Tooth Relic temple, can be ascribed to Building A and the Gedige (Bandaranayake 1974: 383–4).

As noted above, the Daladage's initial identification was made by Ayrton based upon the discovery nearby of a royal edict of Mahinda IV (r. AD 956–72) which refers to terms concerning royal lands given to the Tooth Relic temple (Ayrton 1924: 49). Ayrton assumed that the edict was located in the precincts of the temple itself (*ibid.*). Bandaranayake has argued that it could equally, however, have been erected within the precincts of the royal palace, considering that it was a royal edict concerning the donation of royal lands (Bandaranayake 1974: 383–4). Further evidence for the latter theory is found in the various descriptions of the city in the chronicles (*Mvs.*liv.45; *Mvs.*xx.23; *Cvs.*xli.28; *Cvs.*xliv.11) and in the memoirs of visiting Chinese pilgrims (Legge 1886: 101–107), who recorded that the palace was located next to the almshall (Bandaranayake 1974: 383). This new identification led to the conclusion that, although the palace was not in the north of the city, the location of the ruling *kshatriyas* was in the auspicious eastern quarter of the city in accordance with the *Arthashastra* (*Arth.*2.4.8). Having located the palace in the east, Bandaranayake re-identified Building A (Fig. 13) and the Gedige (Fig. 14) as Tooth Relic temples (Bandaranayake 1974: 383). He suggested that there were two of them because they were built by different rulers, similar to the successive Tooth Relic temples at the later capital of Polonnaruwa. One can further advance these identifications by noting that the Tooth Relic temple is recorded to have been located in the centre of the city: 'He restored the burnt Temple of the Tooth Relic in the centre of the town ... and the Mahapali Hall' (*Cvs.*liv.36). Moreover, the centre of the city is where the *Arthashastra* allocated the main temples (*Arth.*2.4.17). The chronicles also stated that Pandukabhaya settled heretics and *niganthas* in a quarter to the northeast of the city (*Mvs.*x.96–102). This location appears to be confirmed by the later reference concerning the pledge made by King Vattagamani (r. 103 BC), when fleeing from a battle in the north of the city, to build a Buddhist monastery on the site of a *nigantha* monastery (*Mvs.*xxiii.44). The king fulfilled his pledge and built the Abhayagiri monastery, which is indeed located to the north of the city (*Mvs.*xxiii.82). The original allocation of heretics and *niganthas* to an area north of the city is attested too by the *Arthashastra* (*Arth.*2.4.23). The planning text also advocates the division of square-shaped cities into a gridboard of smaller squares using cardinal roads (*Arth.*2.4.1). A contour survey of the entire mound was completed by Masaki Choya in 1992, and subsequent mapping was carried out by the British team in addition to geophysical and coring surveys in 1992 and 1993. These confirmed that the city has a relatively square shape. It is also possible to interpret various individual surface features which appear to be integral to the city's layout. In 1936 Paranavitana published a plan of the Citadel showing the course of ancient streets which could still be traced (Paranavitana 1936). Three parallel roads ran from the north wall of the city to the south and a single road from the middle of the western wall to

the Gedige in the centre of the city (Fig. 12).

From our own survey we have been able to identify the course of further roads and the locations of breaches, or perhaps gates, in the city ramparts. Two east–west roads were identified. The first was the main cardinal road running from the eastern central gate through the city to the largely undocumented Hindu temple complex just outside the centre of the western city gate. The second road was identified running from a breach in the southern half of the western wall, through the Vijabahu complex on a central alignment to the eastern wall. Three north–south roads were identified. The first appears to be the cardinal road, the Green Path or Sanghamitta Mawatha, which runs from the Citadel's western southern gate along the path of the modern metalled road or a breach in the northern wall. To its east is a road which runs from the western side of the vihara in the north of the city to the west of the Gedige and to the central southern gate identified by Godakumbura (Godakumbura 1961). Ayrton partially excavated this road close to the northern vihara in 1913 (Ayrton 1924). The third north–south road runs parallel to Ayrton's street, from the northern vihara, to the east of the Gedige and the royal palace, to the southern wall. Thus we may hypothesize that the entire city was divided into a cardinal grid and that monumental buildings were placed within the grid.

Although it is accepted that the surface survey is likely to pick up only the most recent phases of occupation at the site, there is evidence to support the phenomenon of cardinal planning in the city from the third century BC onwards at trench ASW2. Before this date the evidence is unclear, mainly because the earlier structures were round. During structural period I, when the city occupied some 67 hectares, the circular structures were replaced by eight phases of cardinally oriented rectangular or square ones. While this small sample suggests that these structures might be filling an overall grid plan for the city, no roads or alleyways were identified in the trench. However, during structural period G the settlement reached its full extent of 100 hectares. ASW2 was occupied by five phases of rectangular or square, cardinally oriented limestone and brick structures. The main structure's northern edge was defined by a brickbat wall, beyond which ran a 0.5 m wide brick-paved alley. It may be assumed that, if the alleyways of the settlement were cardinally planned, it is likely that the main roads were also planned in this manner.

As noted above, Ayrton excavated a late structural-phase street and house complex in the north of the Citadel (Ayrton 1924: 51). Despite the collapse of the Anuradhapura polity in the face of Chola invasions and the shift of power and population to the new capital, Polonnaruwa, Anuradhapura appears to have kept its planned format. Although the area occupied was reduced to some 70 hectares, only a fraction larger than the Early Historic settlement at the site, the street that Ayrton excavated in 1913 was perfectly oriented north–south. He also excavated five or six houses on the

eastern side of the street and, although they were very small structures with only one or two rooms each, all of them were cardinally oriented (ibid.).

Although the above pieces of information are somewhat insubstantial, our excavations at ASW2 have made us aware of the continuity of occupation at the site through space and time. The city was continually rebuilt and restored along the lines of its original plan, partly because, once the city had been established, rebuilding mostly occurred piecemeal within individual blocks and not in one massive structural period after another. This continuity is illustrated by the *Culavamsa*'s description of the partial restoration of Anuradhapura while it was reoccupied by the Sinhalese after the Chola occupation. A high official of Parakramabahu I was ordered to Anuradhapura to repair the city. Within the walls of the old capital he restored the walls, streets, gate towers, ponds and gardens (Cvs.xxiv.8-10). Having also restored the surrounding monastic complexes, he then restored his own dwelling place, a *pasada* with gates, towers, royal courtyard and moon chamber (Cvs.xxiv.11). It is tempting to find strong parallels in the chronicle's description of restored Anuradhapura with the *Arthasastra*'s description of a model city (Arth.2.4.1). It may be possible to identify the restored *pasada* with the 'palace of Vijayabahu', which represents one of the last monumental constructions in the city in the eleventh century AD (Figs 15, 16). At this time a monumental palace complex was constructed in the southwest corner of the Citadel. In form and orientation it is very similar, although smaller, to the palace complex at both Polonnaruwa and Pandunuwara. Unfortunately the excavation, carried out by the Archaeological Department between 1949 and 1950, has never been published, apart from a small description in the administrative reports of the Archaeological Commissioner. The complex consists of three units: an outer enclosure, an inner galleried enclosure and a central edifice. The large, cardinally oriented outer enclosure measures some 200 x 200 m and had a gatehouse measuring 10 x 10 m at the centre of its eastern side, presumably through which the main street led. The inner enclosure measured 67 m east-west and 40 m north-south and it had a 5.8 m wide gallery running all around its perimeter forming a single open courtyard measuring 55.5 m east-west and 29.3 m north-south. The eastern half of the compound was left open, while the palace, measuring 22.5 m east-west and 20.4 m north-south, occupied the western half. The palace was raised above the courtyard level on a 1 m plinth and access was via stone staircases on the western and eastern sides flanked by guardstones with 'pot bellied, well-dressed and profusely jewelled Yaksha' (Paranavitana 1950: 18). The building consisted of three halls; the easternmost measured 15.87 x 6.1 m and was decorated with coloured plaster panels. From it a flight of stairs led up to the central hall, which measured 9.45 x 6.40 m. Flanking the hall on either side were three rooms or cells and a staircase leading to the first floor on the southern side. A staircase led down from the

central hall which measured 11.6 x 3.6 m. The latter hall had a walled chamber measuring 1.2 x 1.5 m, interpreted as a treasure-room or a lavatory. The pair of Yakshas depicted on the guardstones to the palace have been identified as Bahirava figures or dwarfs, and in particular as Sankha and Padma (Paranavitana 1955: 122; Godakumbura 1982: 20). Sankha, bearing the conch, and Padma, with the lotus, are the attendants of the god of wealth, Kubera, and their specific duty is to protect the god's treasure. The placing of Kubera's guardian attendants at the entrance of the palace building surely must have a rather obvious symbolic meaning (Coningham 1994a).

3.4 The monastic zone

This zone of Anuradhapura is often referred to as the sacred city and consists of four major monastic establishments and a number of smaller ones. The visible remains are the result of over a thousand years of donations and as such represent an organic, rather than a formally planned, growth. It would also be true to state that while some monuments, like the Thuparama, which were founded by King Devanampiya Tissa (c. 250-210 BC), may actually be reported as the oldest Buddhist monuments within the zone, they are not the original structures themselves. Over a millennium of rebuilding and remodelling has greatly enlarged and altered the original constructions. Indeed, many of the monuments owe more to the building and architectural styles of the late nineteenth and early twentieth century AD rather than the end of the first millennium BC. It is also necessary to state that the enormous stupas, the focus of present ritual, were not always the focus of ritual in the past. Bandaranayake has suggested that the initial third-century BC practice of stupa veneration and worship was replaced in the fourth century AD by other forms of devotion (Bandaranayake 1974: 52). Anuradhapura's monastic complexes appear in plan as a bewildering combination of structures, as they housed not only stupas but also buildings for other functions. Many of them can be attributed to specific functions, and thus we can begin to simplify and understand the division of the areas within the major viharas.

Bandaranayake has divided the monastic monuments at Anuradhapura into three main groups: shrines and sanctuaries designed for individual use; ecclesiastical buildings designed for congregational devotion; and residential buildings designed to facilitate daily life within the complex and thus including hospitals and refectories as well as dwellings (ibid.: 27-8). The first group - shrines and sanctuaries - is subdivided into five separate monument groups: stupa; *cetiya* or stupa temple; *bodhi* or Bodhi tree shrine; *asanaghara* or throne sanctuary; and *patimaghara* or image house (ibid.: 27). The second group - ecclesiastical buildings - is subdivided into eight groups: *uposathaghara* or building for the performance of acts of Vinaya; *upathanasala* or hall for clerical assembly; *padhanaghara* or meditation house; *cankamanaghara* or

promenade meditation house; *sannipatasala* or convocation hall; *dhammamandapa* or hall for the preaching of the Dhamma or law; *carussala*, a square/rectangular hall of uncertain purpose; and *pothakalaya* or library (ibid.: 28). Bandaranayake's third division of function – residential buildings – is divided into seven groups: *vihara*, a complex of monastic units within boundaries, forming self-contained autonomous units; *parivena* or monastic school or sub-monastery; *pasada* or rectangular dwelling; *kuti* or smaller monastic dwelling; *bhojanasala* or refectory; *jantaghara* or bath-house; and finally *arogyasala* or hospital (ibid.). While such divisions and subdivisions are frequently applied to structures, we have evidence that the function of these buildings occasionally altered over time; for example, the *bodhighara* in the Abhayagiri vihara was later altered to allow the presence of a new focus of devotion – the Samadhi image (ibid.: 164). A further problem is that the conserved monuments today present a homogenous appearance although the development of these establishments was, of course, piecemeal and organic. The Jetavana vihara complex, for instance, is the outcome of almost 900 years of donations (Seneviratna 1994: 115–22).

In addition to the identification of major structures within these complexes, it is also important to recognize the provision of secular structures. Indeed, these monasteries were also, to a large extent, major temporal establishments whose daily needs were supported by the allocation of land revenues, villages, water channels, customs duties, slaves, cultivators and craftsmen (Coningham 1994a). This is not altogether surprising, as many such establishments were granted to royal or noble *bhikkhus* (monks). Mahanamma, son of King Kassapa I (r. AD 473–91), for example, was appointed head of a vihara which contained 600 monks, seven supervisory officials and five groups of servants and assistants versed in handicrafts (*Mvs.*lvii.12). Such establishments contained administrators, craftsmen, workmen and slaves as well as monks. The full extent of this secular element is illustrated by the slab inscription of Mahinda IV (r. AD 956–72) at the nearby complex at Mihintale – the rainy-season residence of many of the monks of Anuradhapura. The inscription lists the vihara's 158 servants: one administrator, one steward, one casket registrar, one casket keeper, one almoner, one lay warden, one watchman, one master of festivals, one servant who attended to calf-rearing, one servant of the royal household, four paymaster servants, one head keeper of granaries, one keeper of granaries, one refectory warden, one head physician, one physician, one astrologer, one keeper of the relic house, one district headman in charge of relic houses, one registrar of shrines, three shrine superintendents, three *dagoba* watchers, one chief of attendants, one head of servants, twelve cooks, one servant who cooks and brings firewood, one servant who brings firewood but does not cook, one servant who cooks, one chief master artisan, two master artisans, eight carvers, two

bricklayers, two woodworkers, two master lapidaries, two blacksmiths, two lime-burners, one head painter, eleven painters, one chief thatcher, eleven thatchers, five potters, six cartmen, one overseer of workmen, twelve workmen, one alms- and water-bowl supplier, two florists, one waterlily keeper, one almsbowl supplier, one barber, twenty-four hired female servants, sweepers (Wickremasinghe 1912b: 101–112). That many of these functionaries were actually formally attached to viharas is supported by the rather later copperplate grant of Bhuvanekabahu IV (r. 1341–51) recording that he had built a new shrine and perimeter wall at the Lankatilaka vihara and that 'On the western side he laid out streets for those engaged in the service of the vihara, including the male slaves, female slaves, workmen and others to reside in' (Paranavitana 1960: 6). A similar reference is found in the description of the restoration of the Polonnaruwa viharas by Vijayabahu I (r. 1055–1110): 'a splendid vihara ... provided with a wall and trench, beautified by a splendid five-storied pasada, well equipped with charming rows of dwellings round about, filled with people' (*Cvs.*lx.11–13). To this list one may add structures for storage, wells and bathing ponds, and even manufacturing areas such as the metal-working complex identified at the Abhayagiri vihara (Wickramagama 1984).

The plan of the largest and oldest of Anuradhapura's monasteries, the Mahavihara, covers an area of 1.6 square km and is bounded on the west by the Basavakkulam, on the north by the Citadel's southern wall and on the east by a branch of the Malvatu Oya. Although not fully excavated or conserved, major identified structures include two *bhojanasalas* or refectories, one *upatthanasala*, one *uposathaghara* or chapter house, a convocation hall, one *bodhighara* complex, at least twelve monastic units and three stupas, the largest of which following restoration stands at 106.5 m high and 91 m in diameter (Pl. IIb) (Seneviratna 1994: 104; Bandaranayake 1974: 45). Originally a royal pleasure garden known as the Mahamegha park, the Mahavihara was founded by Devanampiya Tissa in the third century BC (*Mvs.*xv.24), and during his reign (250–210 BC) and that of his brother the first major structural foundations and plans were begun. They included the Ruvanvalisaya stupa; the Bodhi tree shrine (Fig. 17); a *lohapasada* or 'brazen house'; an *uposatha* hall; a refectory; the Thuparama stupa (Fig. 18), built over the Buddha's collar-bone; and a stupa constructed over Mahinda's remains (*Mvs.*xv–xx). The location of most of these monuments has been identified, but clearly the original structures have been greatly altered and the gaps between them filled with a number of smaller residential monastic structures or *parivenas*, structures which Bandaranayake has attributed to the great monastic developments of the fourth century AD (Bandaranayake 1974: 49).

The Mirisavati vihara is a later religious establishment founded in the second century BC by King Dutthagamani (Duttugamani; r. 161–137 BC)

following a successful campaign for the kingdom. Although it is sited to the south of the Basavakkulam, it is still part of the Mahavihara complex, and the *Mahavamsa* records that it took three years to build, centred on a great stupa (Mvs.xxvi.13-14). The restored stupa rises to a height of 58.5 m and measures 43 m in diameter (Fig. 19); it stands among twelve self-contained residential monastic blocks, two *upatthansalas*, one *uposathaghara* or chapter house, and one *bhojansala* or refectory (Seneviratna 1994: 191; Bandaranayake 1974: 45).

Traditionally the most powerful and orthodox of Anuradhapura's monastic establishments, the Mahavihara temporarily lost its influence when the Jetavana and Abhayagiri viharas were constructed, but it eventually regained its position of authority. The latter establishment, the Abhayagiri vihara, was founded at the beginning of the second century BC by King Vattagamani Abhaya (r. 103 BC, 89-77 BC) on the foundation of a Jain monastic residence. Although it was originally only an addition to the Mahavihara, the *Mahavamsa* records that the newly established monastery soon became the focus of a new, independent community of monks who had left the Mahavihara (Mvs.xxxiii.95-99). The community achieved a pre-eminent position during the reign of King Mahasena (r. AD 274-301), who was advised by one of the monks from Abhayagiri that the Mahavihara monks were opposed to the true *Vinaya* (the rules of discipline that governed the *Sangha*). The king accordingly removed the Mahavihara's means of support, leading to its general abandonment (Mvs.xxxvii.3-7). The abandoned site was plundered of building materials and structures which were then reconstructed in the Abhayagiri monastery (Mvs.xxxvii.10-16). This was, however, only a temporary reverse, and the Mahavihara was later reoccupied and rebuilt. The Abhayagiri monastery, with its strong links to other Buddhist communities within subcontinental South Asia, continued to be a centre for international pilgrimage and patronage. In the fifth century AD the Chinese monk Faxian (Fa Hsien) recorded that it held more monks than the Mahavihara and that it was closely involved in the Tooth Relic and Almsbowl cult veneration as well as having its own cutting of the Bodhi tree (Legge 1886: 102-110). Developed over a number of centuries, it reached a maximum coverage of 200 hectares (Bandaranayake 1974: 55). Centred on a stupa measuring 71.5 m in height and 94.5 m in diameter (Pl. IIIa), this vast area has three main *bodhigharas*, an *uposathaghara*, a *bhojansala* and an *upatthanasala*, as well as over twelve monastic residential units (ibid.: 45). The complex contains a self-contained unit known as the Lankarama in its southwest corner, also built by Vattagamani Abhaya (r. 103 BC, 89-77 BC). Again centred on a stupa, this latter complex included a *bodhighara*, *patimaghara* and *bhojansala* (ibid.).

According to the *Mahavamsa*, the last of the great monasteries, the Jetavana vihara, was also founded as the result of a schism, this time between rival groups

within the Abhayagiri community who had already moved from the northern monastery to the Dhakkhina or southern vihara (Mvs.xxxiii.98). King Mahasena (r. AD 274-301) established a new vihara for one of the latter groups in a garden called Joti within the eastern boundaries of the Mahavihara (Mvs.xxxvii). The construction of this new monastery, the Jetavana vihara, led to the temporary abandonment of the Mahavihara by its monks, but it was soon reoccupied (Mvs.xxvii.38). The vihara is centred around the largest stupa in the island which survives to a height of 160 m (Fig. 20) and includes an image house, a *bhojansala* or refectory, two *upatthansalas*, one *patimaghara*, one *uposathaghara* and one *bodhighara*, and over thirteen monastic units (Bandaranayake 1974: 42-5). For further details concerning the major establishments within Seneviratna's monastic zone please see Bandaranayake (ibid.).

3.5 The tank and village zone

We may make a similar comment on the provision of tanks within the next zone, the zone of tanks and villages, as the visitor to Anuradhapura sees a series of enormous tanks, linked by canals and controlled by an elaborate system of annicuts, flues and cisterns. These, however, like the enormous monastic complexes, are the result of over two millennia of occupation of the site. Although the history and development of water management in the region has already been commented on in Chapter 2.4 above, it is worth summarizing the main chronological development again. It should be noted that most of our understanding of the chronology of this zone is based on a combination of epigraphical evidence and references in the *Mahavamsa*. The first reference to water management in the vicinity of Anuradhapura in the latter chronicle concerns the construction of a tank by Prince Anuradha (Mvs.ix.11). It is interesting to note that during the monsoon of 1891 all the low ground in Anuradhapura was reported to have been flooded (Wijesekera 1990: 13), suggesting that the initial selection of the site had not been through chance, but that the low-lying nature of the area was significant in the containment and management of water resources. Prince Anuradha's great-nephew, King Pandukabhaya, is recorded as having augmented this provision by constructing a further two tanks, one to the west of the new city, identified by Parker as the Basavakkulam, and another to the south of the city, identified by Parker as the Tissavava (Parker 1909: 360-400). While the Basavakkulam covers some 91 hectares (ibid.) (Fig. 21), we are unclear what extent was originally covered by the Tissavava, or Jayavapi as it was then known. The next addition to the system is recorded as having occurred during the reign of Devanampiya Tissa (r. 250-210 BC), when this contemporary of Asoka had the Tissavava expanded and renamed (ibid.: 364) (Fig. 22). The newly expanded tank covered 160 hectares (ibid.: 360-400). The final addition to the system was the Nuvaravava tank, which was constructed in the first century AD and covered

1288 hectares (ibid.) (Fig. 23). These initial foundations were augmented in the fifth century AD by a system of channels and canals to further guarantee water supplies (Brohier 1934: map 8). No dates are available for the other tanks within the city. Similarly, we do not know when they were abandoned or whether they were all in operation at the same time. There are a number of references to the restoration of tanks and channels in the *Mahavamsa* (Geiger 1960: 88), leading one to assume that they were often abandoned. Parakramabahu (r. AD 1153–86), for example, is recorded as having repaired the Kala-vapi tank (*Mvs.lxxix.31*) and the canal known as the Jaya-ganga (*Mvs.lxxix.58*). The effect on the irrigation and cultivation system of Anuradhapura of the loss of the major feeder tank to the Nuvaravava and the major feeder canal to the Tissavava must have been cataclysmic! Indeed, the importance of irrigation cannot be overstressed, as the provision of water for irrigation agriculture at Anuradhapura was crucial, as I have indicated elsewhere (Coningham 1995b: 67). The dry-system yield of rice is only between 180 and 230 kg of grain per acre, in comparison with the wet-system yield of some 2267 kg per acre. Rice irrigation thus dramatically increases the restricted carrying capacity of the natural resources of the Dry Zone from a mere 0.4 individuals per km² (Deraniyagala 1992: 412) to a massive 2400 individuals per km² (Coningham 1995b: 67).

In addition to the evidence which can be gleaned from the *Mahavamsa* and *Culavamsa*, it is possible to recover further information concerning the irrigation systems of Anuradhapura from epigraphical sources. In doing so, however, we face the drawback that since they have a tendency to record donations to the *Sangha*, the Buddhist order, the resultant pattern is not wholly representative. Still, it is interesting to note that the *Sangha* owned substantial amounts of land, villages and water rights in the area immediately surrounding the city. This monastic ownership of temporal resources appears to have been a relatively late phenomenon, as the early Brahmi inscriptions record the donations of caves to the *Sangha* while inscriptions recording the donation of land, villages and water rights tend to date from the first century AD (Jayewardene 1990). The water management system was crucial for the support of the city's inhabitants, their cattle and crops. The importance of this system and its workings may be illustrated by an inscribed slab erected by King Mahinda IV (r. AD 956–72) in order to solve a dispute over water from the Tissa tank between the steward and monks of the Tissarama in Mahamevna (Mahameghavanna), presumably the Mahavihara, and the steward and monks of the Isuramenu Bo-Upulvan-Kasub-giri, perhaps the Issurmuni vihara (Wickremasinghe 1912a: 34–8). The edict stated (ibid.: 36–7) that:

The fields around the Vihara, in sowing extent 144 kiri and one paya, cultivated by means of this water [of the Tissa tank] shall be supplied

with water [from the same tank] through the medium of a distributing tank, [the flow of water being continued] without interruption, until the top of the aqueduct-stone, set up in front of the Mohalnanga royal sluice at [a depth of] 4 cubits of water, appears [above water] ... By leading the water from the distributing tank to the fields and gardens adjoining the vihara all round, *sinhinati* [*oryza sativa*] paddy shall be raised, but not *mungati* grain [*leguminisae*].

The inscription suggests that there were detailed administrative records precisely setting out the quantity of water allocated and even the crops which could be raised on land thus irrigated. A further example is provided by the rock inscription of King Vasabha (r. AD 67–111) in the vicinity of the Perimiyanakulam tank, north of the Lankarama stupa. This inscription (Wickremasinghe 1912c: 70) stated that the king:

... granted the revenue derived from the water of Palinakaraka tank in Tihataka-karisa, situated in the locality of Tiragama, unto the *thera* Majibuka, for reason of the function of looking after the dilapidated (buildings) situated at (his) place of sojourn, Patangala.

Similarly, the slab edict of Mahinda IV (r. AD 956–72) at Mihintale recorded (Wickremasinghe 1912b: 104) that:

One third of [the produce of] trees and plants on the Kirband-pavu, the house rent of the sang-valla here, the tank Manuvasara, the two tanks in the upper-side and in the lower-side of Lahiniya-pavu (the Swallow rock) together with the sang-valla thereof, the land around the pond Pahana-vil and the land around the pond Porodeni-pokhuna – the income derived from all these places shall be appropriated by the vihara. From the householders who live on the vihara lands, ground rent shall be levied in a fitting manner on behalf of the vihara, but not from the vihara serfs and employees.

The income derived from such rights enabled the monasteries to pay the necessary servants and officials as well as provide the flowers, oil, wicks and whitewash needed for the maintenance of the physical and ritual elements of the establishment (ibid.: 107–110). This is not, of course, to suggest that all water from the tanks was used for the purely utilitarian purposes of washing, drinking and agricultural irrigation. Indeed, the royal pleasure gardens, or *Ranmasu Uyana*, beside the northern bund of the Tissavava, are somewhat reminiscent of the hydraulic exploitation at Sigiriya, albeit on a less grand scale (Seneviratna 1994: 204–5). Furthermore, the tanks and their contents played an important ritual role for both the clergy and lay folk. This point can be illustrated by references in the

Mahavamsa, one of which refers to the consecration of Pandukabhaya with water from the Jayavapi pond of Anuradhapura (Mvs.x.77-79), another to the consecration of King Dutthagamani (r. 161-137 BC) in the Tissavava (Mvs.xxvi.6-13).

In addition to the presence of tanks, Seneviratna also allocates farming communities and their fields within this, the third zone of the city of Anuradhapura (Seneviratna 1994: 83). As indicated in section 3.2 above and elsewhere (Coningham 1994b), archaeological research in Sri Lanka has tended to concentrate on the excavation of major structures built of brick or stone. Structures of other materials have therefore been greatly neglected, as illustrated by Paranavitana's summary treatment of wattle and daub structures encountered during his excavations within the Citadel (Paranavitana 1936: 3):

Remains of buildings belonging to two different periods of occupation were laid bare during the operations. Of these, the upper stratum, which was revealed immediately after the subsoil was removed, consisted of vestiges of ephemeral mud structures in the foundations of which fragments of the older buildings were freely used. In this stratum there was not a single clear structure of which enough remained for a ground plan to be made; and these fragments of foundations had to be removed in order to lay bare the remains of more substantially built edifices of an earlier age.

One of the few exceptions to Paranavitana's approach is represented by Ayrton's excavation, with 'the greatest care', of a small street of similar buildings in the northern part of the site (Hocart 1924: 51). Ayrton commented on the similarity between the construction of these buildings and those of 'the modern peasant type' (ibid.), and in so doing provided one of the fullest records of such structures available within Sri Lanka to date. As a result of the preoccupation with monumental structures it is true to state that, with the exception of the excavations at ASW2, since Ayrton's report there have been no publications of similar structures. While, undoubtedly, Seneviratna is correct in attributing simple farming settlements to this zone, they have never been studied archaeologically. This is a problem which affects not just the archaeology of Anuradhapura but that of the whole island. As noted elsewhere (Coningham and Allchin 1995: 170), the combination of the monsoon climate, the use of organic building materials and the density of scrub or jungle has made most rural settlements archaeologically invisible. Indeed, apart from the postulated association of such settlements with tanks or 'megalithic' cemeteries we have few other indicators. The clear successes of detailed settlement surface survey, as illustrated by the University of Jaffna's survey in the Jaffna Peninsula (Ragupathy 1987) and the University of Kelaniya's Postgraduate Institute of Archaeology's survey in the

Sigiriya-Dambulla region (Bandaranayake, Mogren and Epitawatte 1990), suggest that it is only the lack of archaeological survey activity in the Anuradhapura region which is responsible for this lacuna.

For further details of the irrigation system of Anuradhapura, please refer to works by Parker, Brohier, Leach and Gunawardene (Parker 1909; Brohier 1934; Leach 1959; Gunawardene 1971, 1982).

3.6 The forest and hermitage zone

Seneviratna's outermost zone of the city of Anuradhapura is one of encircling forest containing nine small communities of forest monks (Seneviratna 1994: 81). These nine are Vessagiri, Isurumnumi, Pacimarama or the Western monasteries, Toluva, Pacinatissa Pabbata, Puliyankulama or Pubbarama, Pankuliya or Asokarama, Vijayarama and Kiribat vihara (ibid.).

The majority of these establishments, namely Toluva, Vijayarama, Puliyankulama, Pankuliya and Pacinatissa, are late developments dating to the final phase of the Anuradhapura period, the ninth and tenth centuries AD (Bandaranayake 1974: 58), and are located on the north and east sides of the sacred city. They are all enormous, square or rectangular, moated and walled constructions, generally consisting of a number of residential buildings and *jantaghara* centring on an inner, sacred quadrangle containing a *bodhighara*, *patimaghara*, *uposathaghara* and stupas (ibid.: 67) (Fig. 24). Bandaranayake has classified them all as *pabbata vihara*, or mountain monasteries, and notes that their distribution is either provincial or on the outskirts of Anuradhapura and as such they may represent *Vanavasin*, a forest-dwelling sect (ibid.: 69).

Other late examples are provided by the series of structures known as the Western monasteries and which Bandaranayake has termed *padhanaghara parivena*, or abodes of meditating *bhikkhus* (ibid.: 102, 118). These monasteries, over fourteen in number, centre on a double-platform plan, consisting of a *malaka* or terrace attached to a *pasada* or hall by a short stone gangway (ibid.: 120), and have been dated to between the eighth and tenth century AD (ibid.: 130) (Fig. 25). A number of scholars have identified these sites as residences established by a group called *Pamsukulins*, 'those clothed in rags from dustheaps', who in the seventh century AD appear to have attracted substantial royal patronage (Cvs.xlviii.3, 73, 80; Cvs.l.63; Cvs.li.52; Cvs.lii.21, 27; Cvs.liii.48). Most notably Geiger identified the Western monasteries as the 'Tapovana', or grove of penitents, of the *Culavamsa* (Geiger 1960: 203). Similar structures, possibly belonging to similar ascetic groups, have also been noted in large numbers at Ritigala and Vessagiriya (Bandaranayake 1974: 115). While many are tempted to attempt to divide even the early *Sangha* into rural or urban sects (ibid.: 69), we believe that originally such divisions were not so apparent but that, as part of the state formation processes that the island underwent, this division was formalized (Coningham 1995a).

Our remaining sites, Vessagiri, Isurumnumi and Kiribat vihara, are of much older foundation. The monastic complex currently known as Vessagiri was originally called the Isurumuni vihara (Bandaranayake 1974: 19) and is located at the southeast corner of the Tissavava. Founded by Devanampiya Tissa in the third century BC, the complex straddles a ridge formed by three large gneiss rocks; among its major structures are a *bodhighara*, a *bhojanasala*, an *uposathaghara* (ibid.: 68), and a *pabbata vihara* precinct containing a *patimaghara*, *bodhighara*, stupa and *uposathaghara* (ibid.: 44). Clearly, like the major monastic establishments of the inner zones, it has developed organically. The central core of the complex is provided by a series of caves with early Brahmi drip-ledge inscriptions dedicated to the *Sangha* dating to the second century BC (Coningham 1995a) (Figs 26, 27). It is surrounded by a variety of later monastic structures, the latest of which is a small *pabbata vihara* probably dating to the ninth and tenth centuries AD (Bandaranayake 1974: 58). The monastery currently known as the Isurumnumi vihara has been misidentified and should be termed the Meghagiri vihara, its ancient name (Seneviratna 1994: 198–202). Again, this complex, situated to the east of the Tissavava, represents an organic composite with evidence of occupation in the last quarter of the first millennium BC, sculpture in the style of the fifth and seventh centuries AD, and a number of very modern monastic constructions (ibid.) (Fig. 28). The final monastic complex is the Kiribat vihara, located north of the Abhayagiri vihara, close to the Malvatu Oya. Little of this complex has been excavated, but it is recorded to have contained a *patimaghara* (Bandaranayake 1974: 194) dating to the sixth or seventh century AD (ibid.: 212) and a stupa measuring some 9 m in height (Seneviratna 1994: 182).

In addition to those for Buddhist monks, the *Mahavamsa* records that a number of structures for ascetics, ranging from *niganthas* to mendicant monks and Brahmins, were also present within this zone (Mvs.x.96–102). The zone also contained the burial grounds and dwellings of the scavengers, although no archaeological evidence has ever been recovered for such activities. Indeed, the majority of our knowledge of their location within this zone is offered by the *Mahavamsa*'s description of the freshly planned city of King Pandukabhaya. He allocated the village for the *candalas*, employed to clean the city's streets, bear the dead and watch the cemetery, to the northwest of the cemetery (Mvs.x.91–93). The presence of human remains within the sequence at trench ASW2 represents an alternative pattern to this literary description (for further details please see Volume II, Chapter 11: Human Remains). To the northeast of the *candala* settlement Pandukabhaya established a village of hunters (Mvs.x.95). This was another important element in the subsistence base of the entire city, as supported by the results of analysis of the faunal remains from trench ASW2 (see Volume II, Chapter 12: Botanical Remains).

It is interesting to note the high counts of both wild and domestic fauna present within the Citadel, reputedly a Buddhist urban centre. It contrasts interestingly with the slab inscription of King Nissanka Malla (r. AD 1187–96) at the Ruvanvalisaya stupa which records (Wickremasinghe 1928: 82–3) that:

Ordering by beat of drum that no animal should be killed within a radius of seven gav [1 gavuva is 3.5 miles] from the city [of Anuradhapura], he gave security to the animals. He gave security to the fish in the twelve great tanks, bestowing on Kambodin gold and cloth and whatever other kind of wealth they wished, he commanded them not to catch birds and so gave security to birds.

3.7 Conclusion

This is not, of course, to suggest that the city was not embedded within the region, as perhaps evidenced by the provision of feeder canals, tanks and bridges in its vicinity. Indeed, many of the enormous irrigation works provided within Seneviratna's third zone depended upon water directed from elsewhere. The Nuvaravava, built in the first century BC, was fed, for example, by a channel 4 miles long from the Nachchaduva tank (Brohier 1934: map 8). It should be noted that, although the latter tank was only constructed between AD 866 and 901, the feeder channel is undoubtedly older, having been constructed first to tap the Malvatu Oya further upstream through the use of an annicut (ibid.) (Fig. 29). Similarly, the Tissavava, constructed in the fourth century BC, was fed by the Jaya Ganga (Pl. IIIb), a 30 mile long channel cut in the late fifth century AD from the Kalavava (ibid.) (Fig. 30).

Communications also embedded the urban centre within its region, although they were restricted to land routes as the Malvatu Oya is unnavigable. Limited aspects of such routes are suggested by the remains of six bridges within the city's environs. Three of the bridges are found to the north of the city in Seneviratna's fourth zone (Seneviratna 1994: 82), and the remaining three are close to the eastern wall of the Citadel itself. The former bridges appear to provide communication routes in a northern and northeastern direction over the Malvatu Oya and other smaller channels. Two of these, close to the Kiribat vihara, appear to have actually served a single route (Pl. IVa). Indeed, attempts to reconstruct these routes were made as early as 1924 in a plan of Anuradhapura and its environs by the Archaeological Survey (Hocart 1924: 64). The latter three bridges all cross the Malvatu Oya in an eastern direction, two to the north of the Citadel and one to the east of the Citadel's eastern gate (ibid.). Little has been written on the possible dates of these structures, and Hocart states that 'There is little to say about Sinhalese bridges: they are perfectly simple in structure: tenoned pillars supporting cross beams on which rest the slabs that form the road way' (Hocart

1928: 163). Seneviratna believes that two of the northern examples at Anuradhapura only date from the late Anuradhapura period (Seneviratna 1994: 183). In addition to the stone bridges, it is probable that tank bunds also provided further routes. The presence of such communications was necessary for the movements of large numbers of pilgrims, Anuradhapura containing seven of the sixteen places of greatest Buddhist sanctity

in the island (Geiger 1960: 207), as well as providing a suitable infrastructure to support the trade between the inland capital, its hinterland and the coast, the latter being the source of exotic goods.

Now that we have introduced the physical and cultural environment of Anuradhapura, the next three chapters will concentrate on presenting the results of our six seasons of fieldwork there.

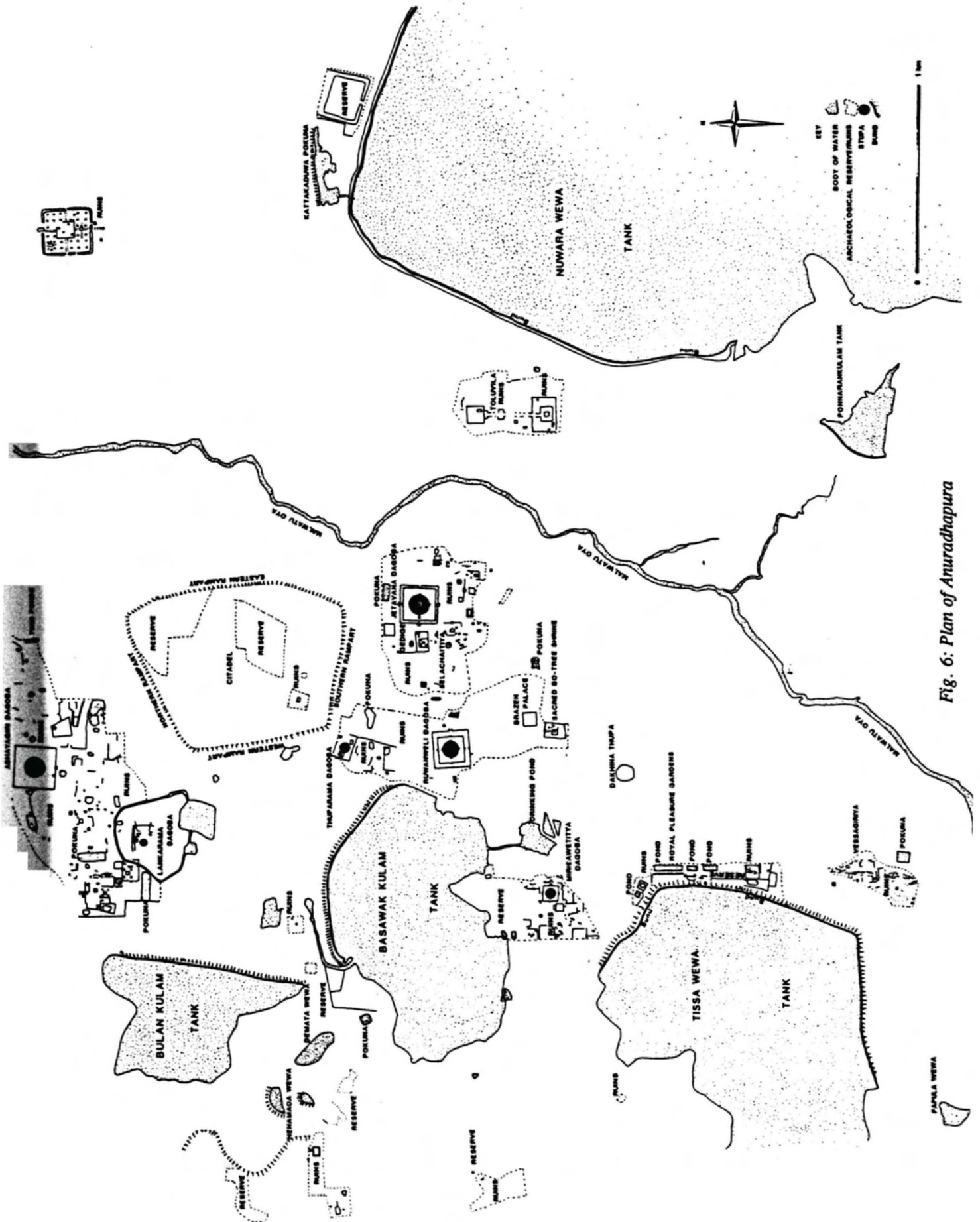


Fig. 6: Plan of Anuradhapura

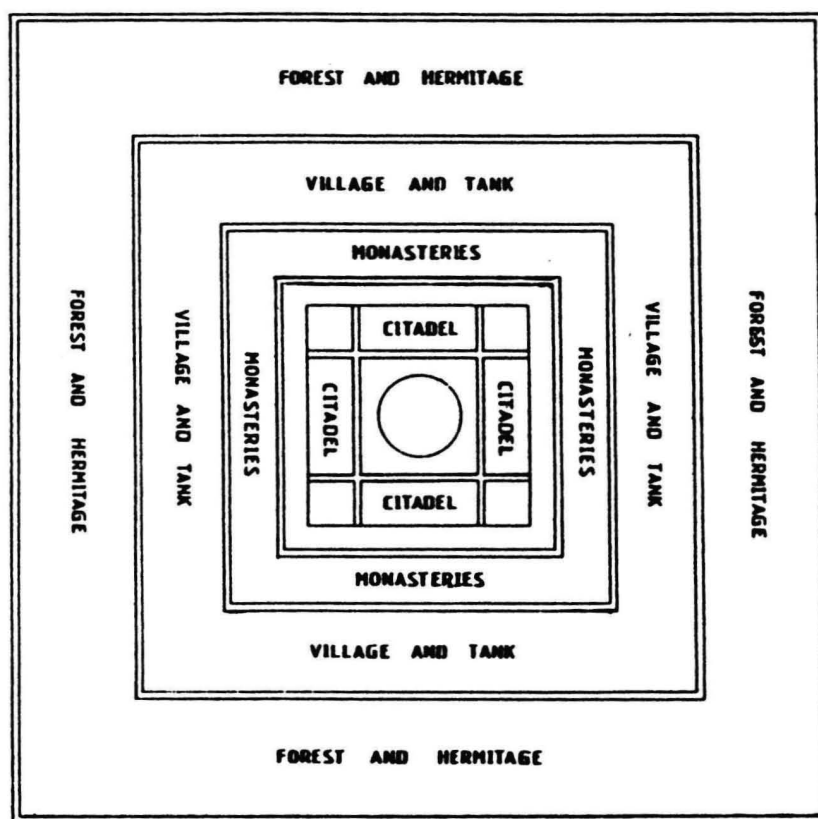


Fig. 7: Schematic plan of Anuradhapura (after Seneviratna 1994)

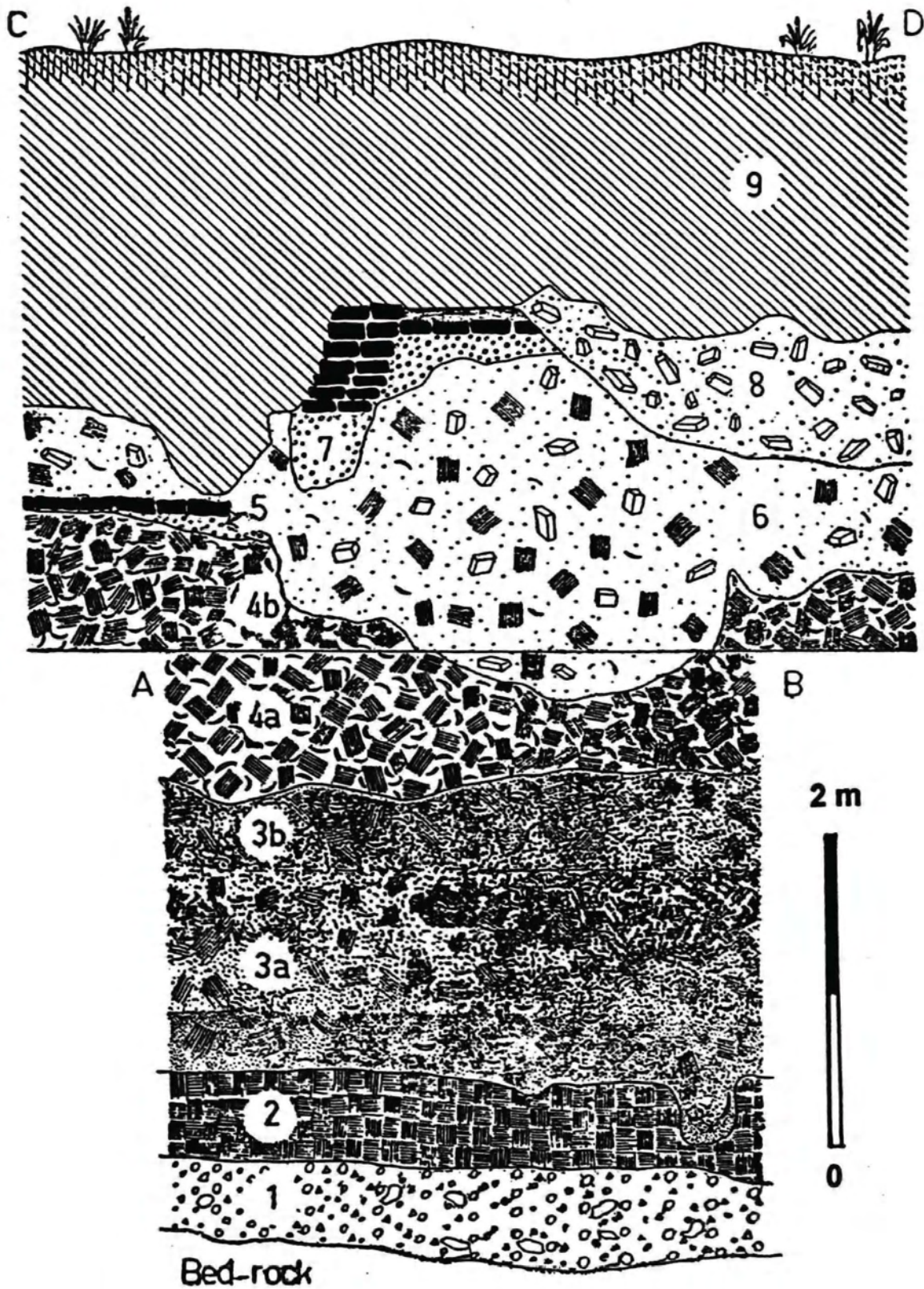


Fig. 8: Section of sondage AG-69 (after Deraniyagala 1972)

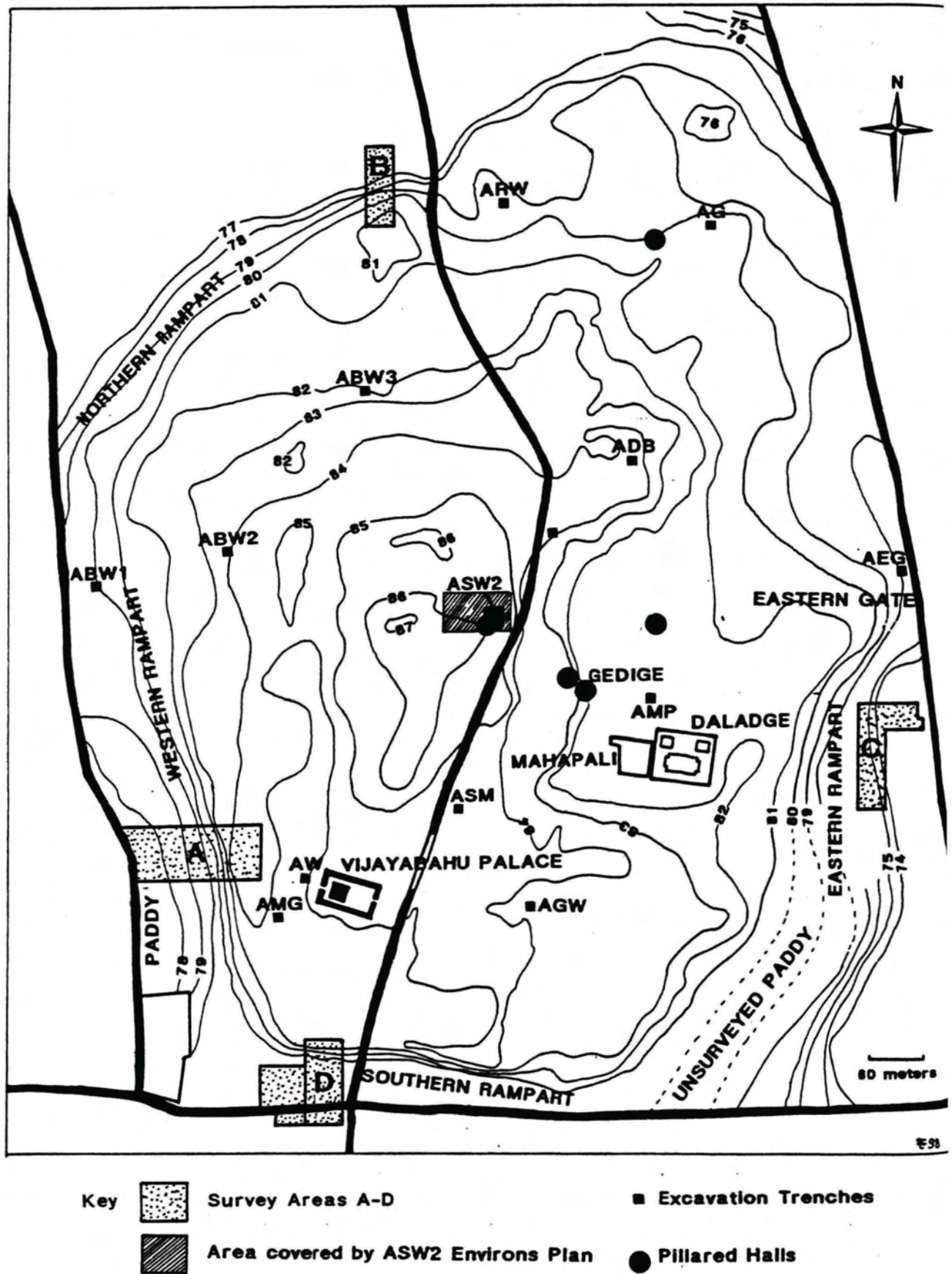


Fig. 9: Plan of the Citadel showing the location of sondages



Fig. 10: The western defences of the Citadel showing ramparts on right and silted moat in foreground

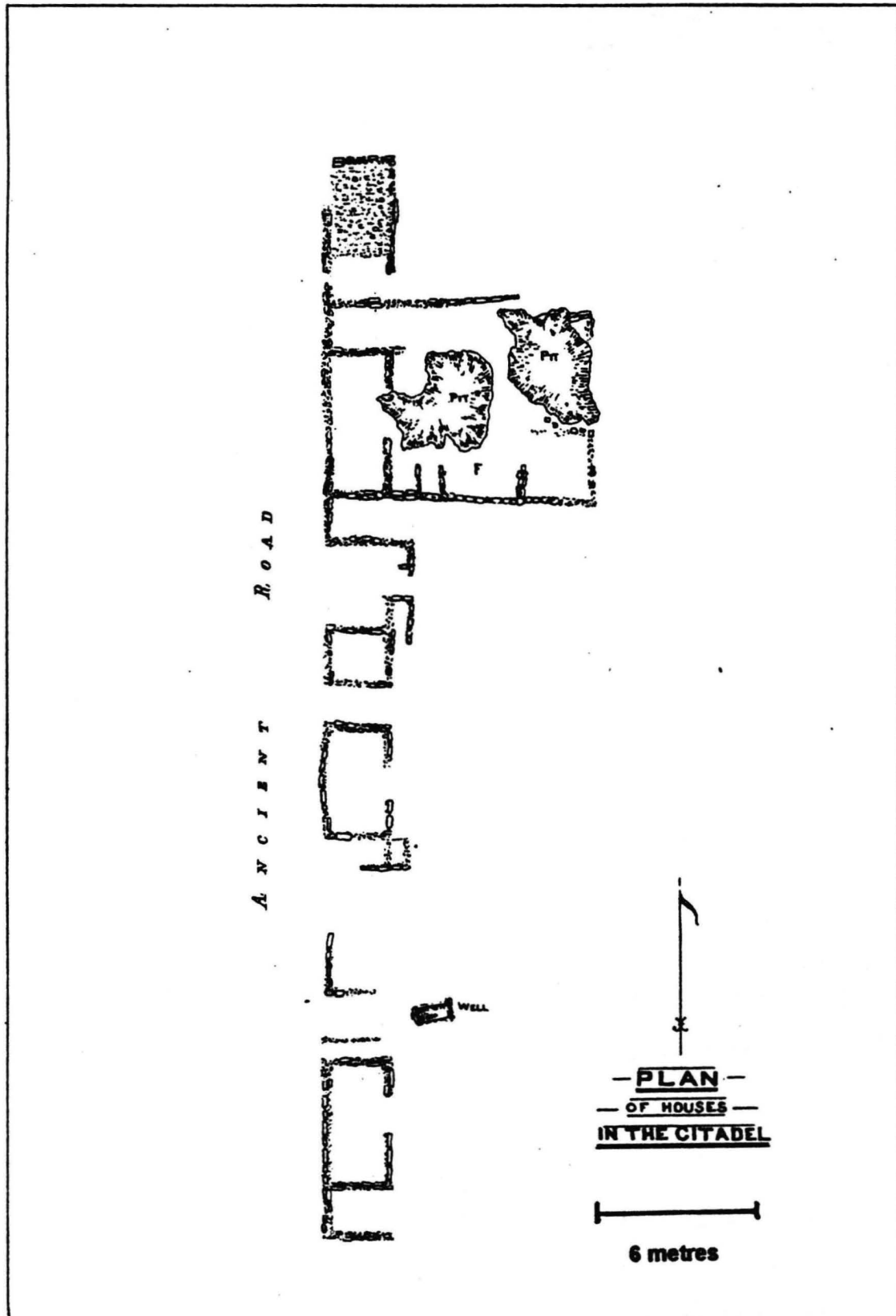


Fig. 11: Plan of final occupation phase street (after Ayrton 1924)

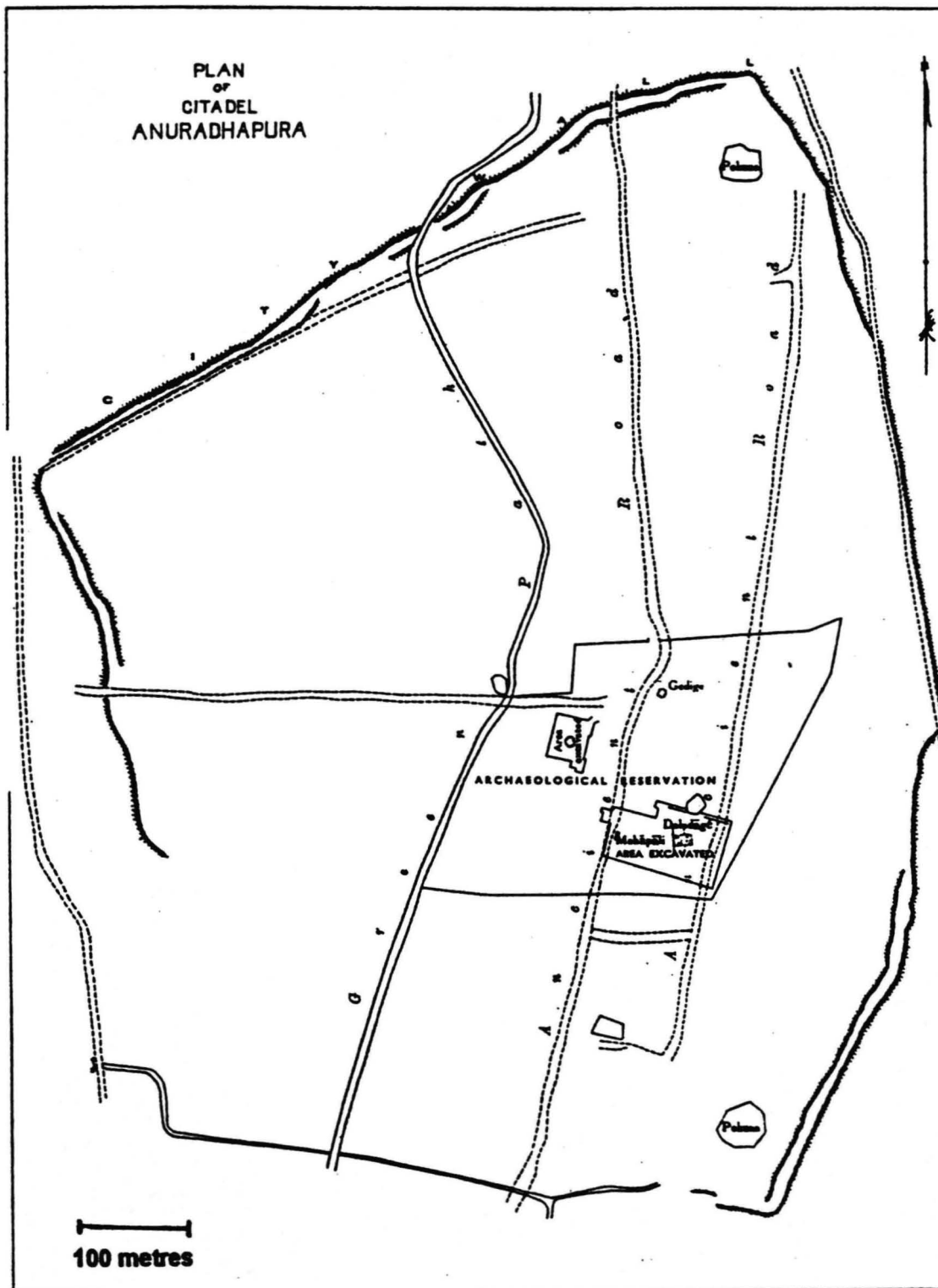


Fig. 12: Plan of Paranavitana's excavations (after Paranavitana 1936)



Fig. 13: Building A

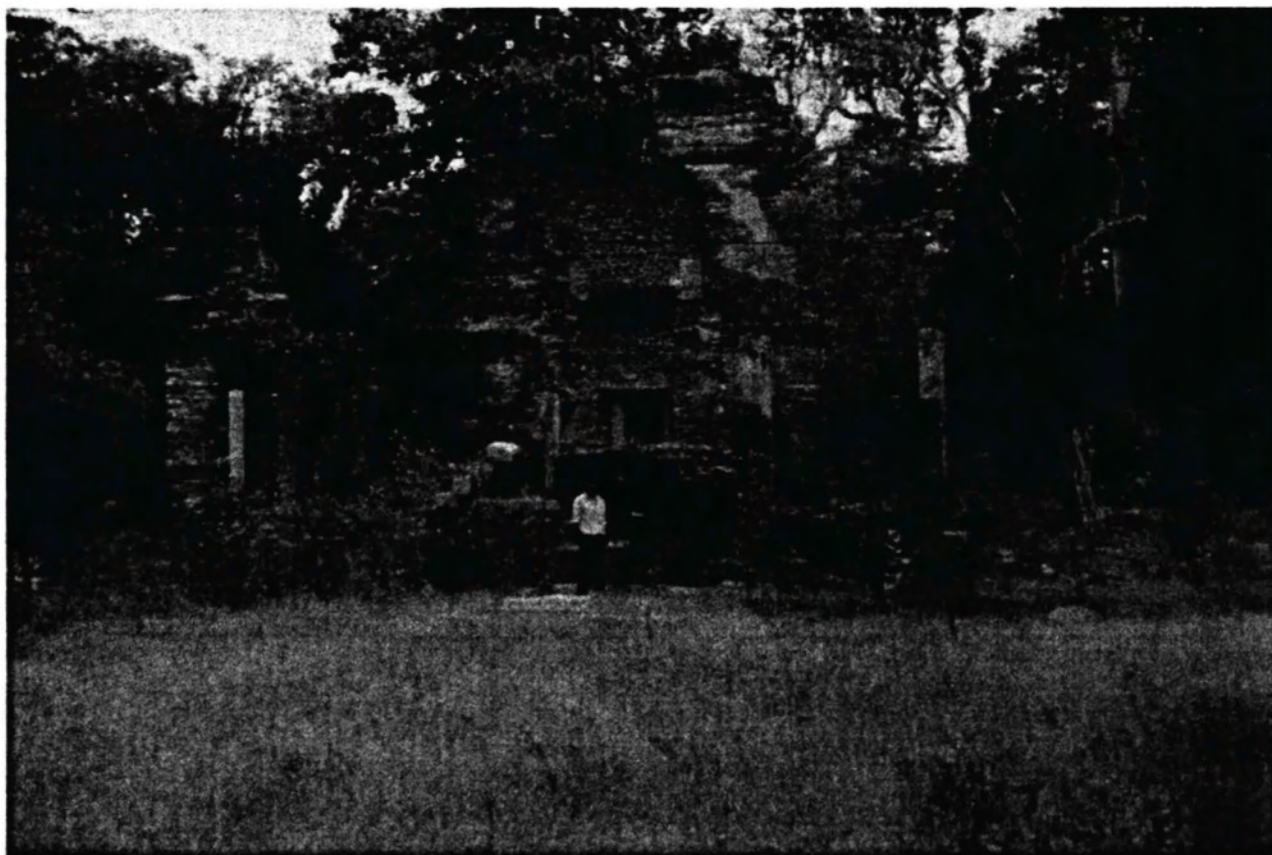


Fig. 14: The Gedige



Fig. 15: Augering in front of 'Vijayabahu's palace'

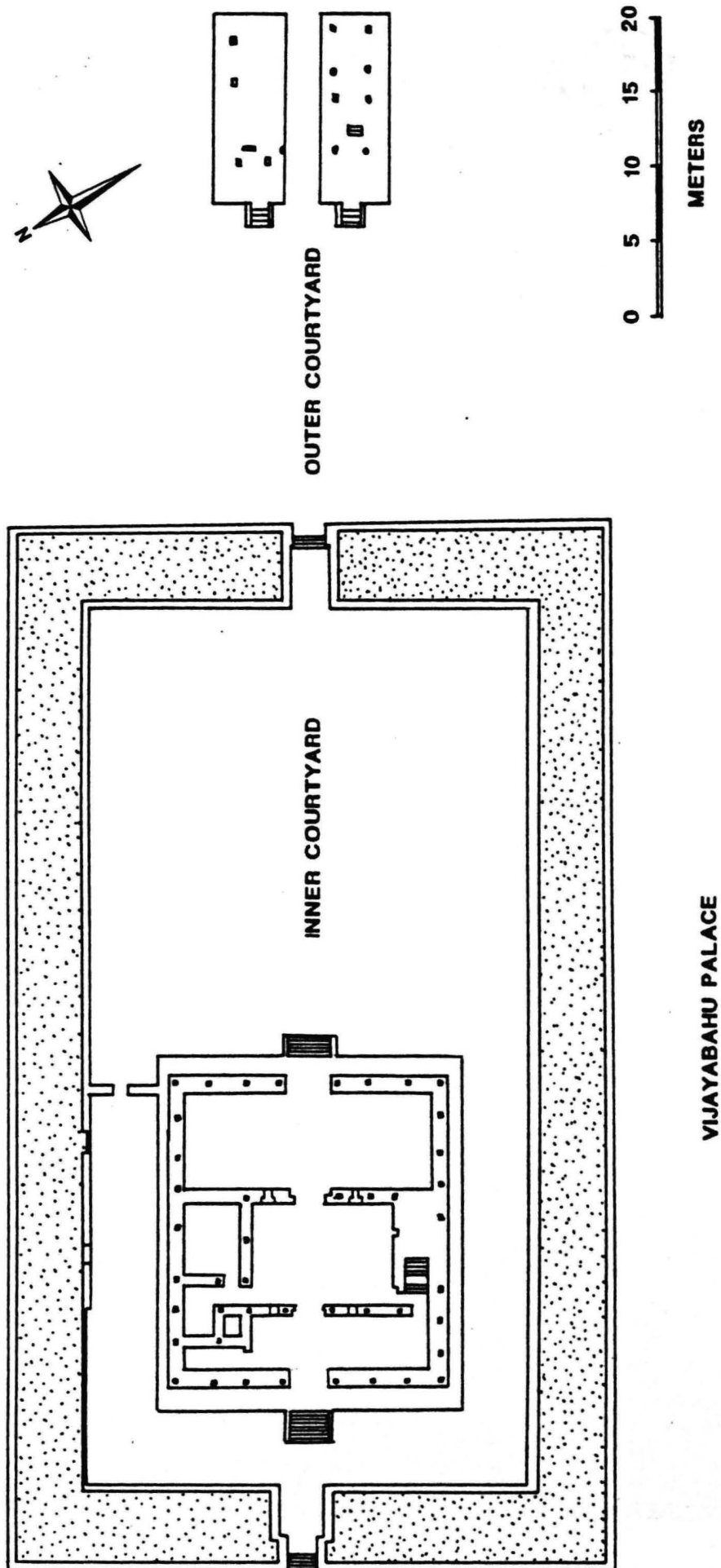


Fig. 16: Plan of 'Vijayabahu's palace'

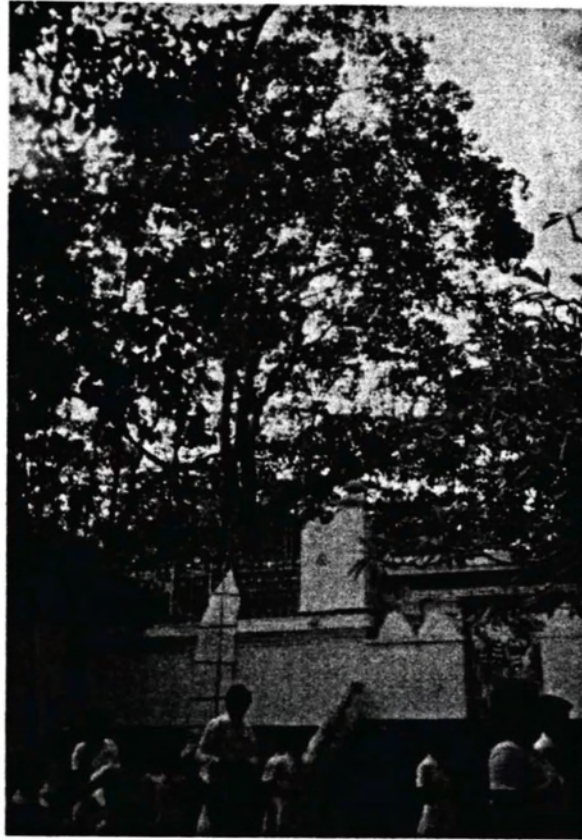


Fig. 17: The Bodhi tree shrine

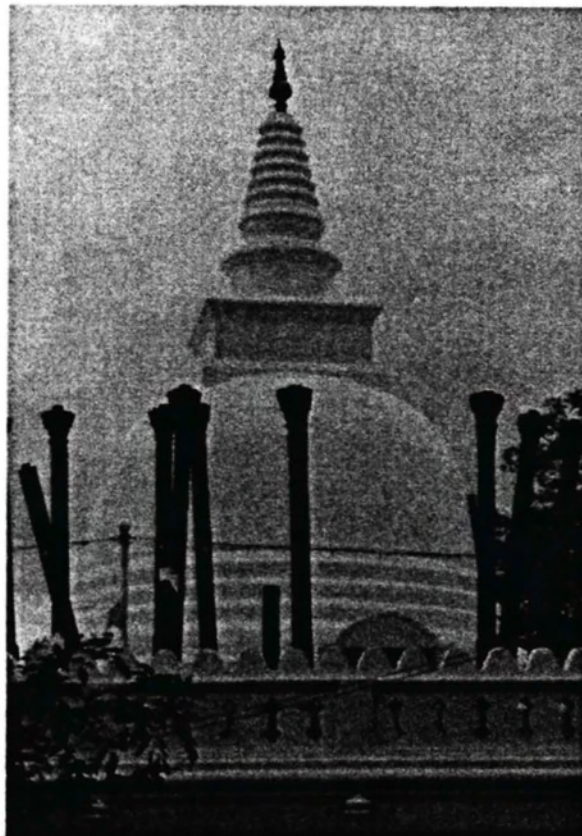


Fig. 18: The Thuparama stupa

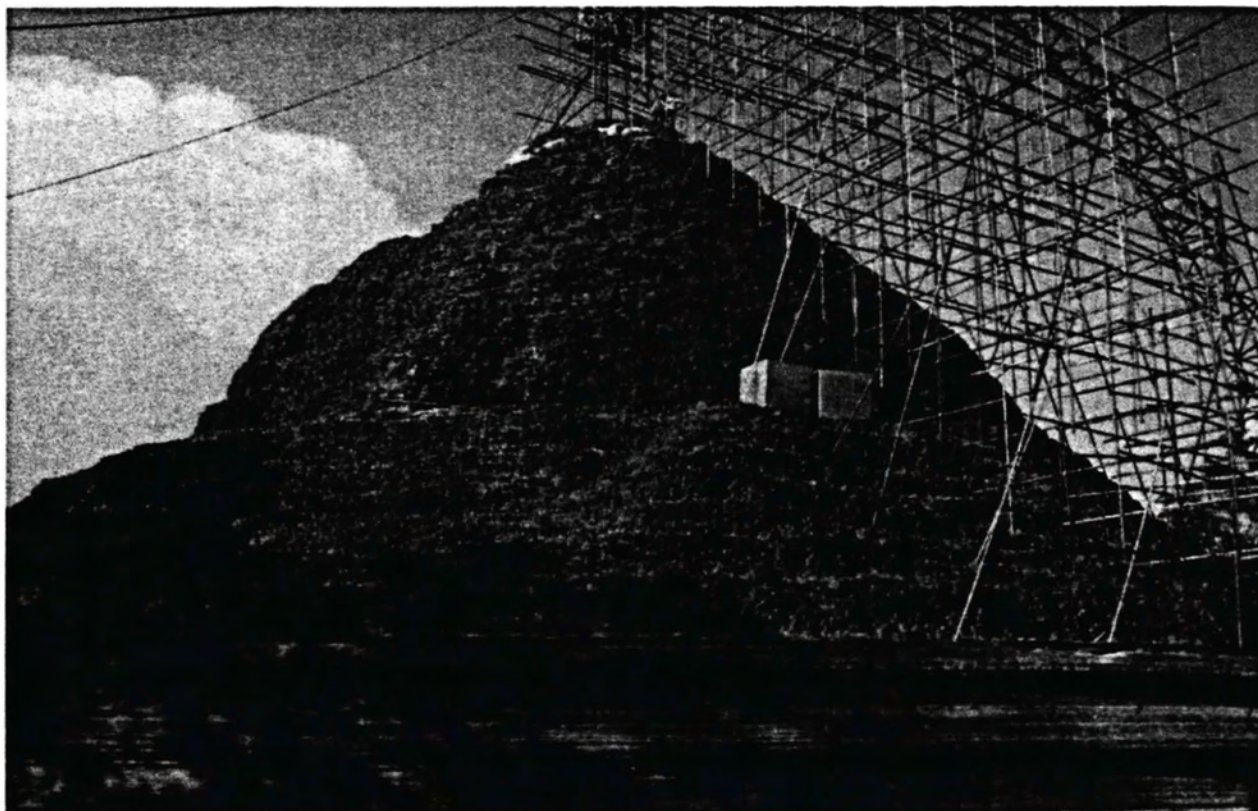


Fig. 19: The Mirisavati stupa



Fig. 20: The Jetavana stupa

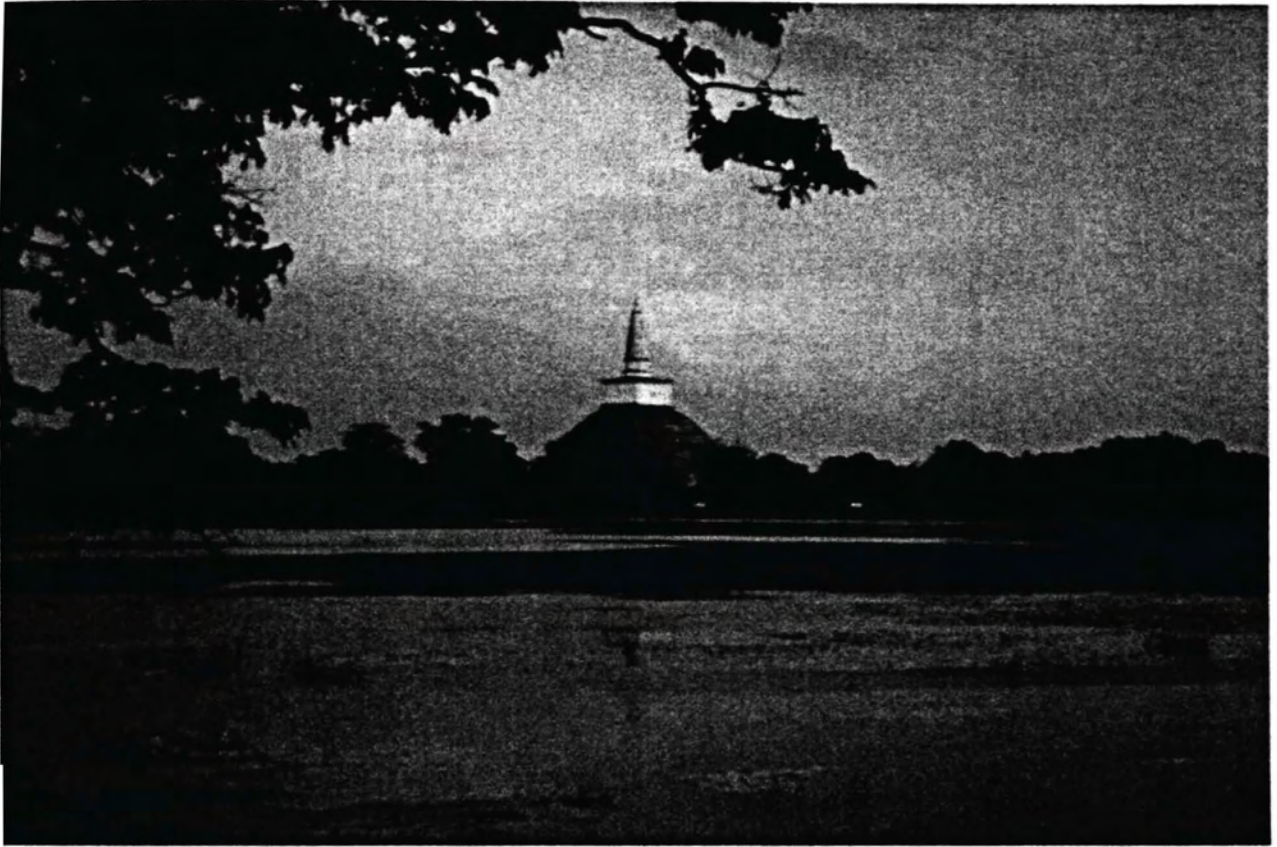


Fig. 21: The Basavakkulam



Fig. 22: The Tissavava



Fig. 23: The Nuvaravava



Fig. 24: The Tolvila stupa



Fig. 25: The Western monasteries



Fig. 26: The Vessagiri vihara



Fig. 27: An early Brahmi inscription at Vessagiri



Fig. 28: The Meghagiri vihara



Fig. 29: The northern annicut on the Malvatu Oya in the process of being encased within a modern dam



Fig. 30: The Kalavava

CHAPTER 4

THE FORTIFICATIONS

Robin Coningham and Paul Cheetham

4.1 Introduction

The fortifications or defences of the Citadel were first identified on the southern side as a banked earthwork by Parker in the early twentieth century (Parker 1909: 274), and by 1924 the entire circumference was included in a map of Anuradhapura published by the Archaeological Survey Department (Hocart 1924) (Fig. 31). They were excavated for the first time in 1960 by Godakumbura, who cut a section through the southern rampart (Godakumbura 1961). He hypothesized that they had consisted of a moat and a brick and earth rampart capped with an ashlar wall. Godakumbura's successor, Silva, continued this work by excavating part of the eastern rampart in the 1970s. Although the report is still pending, it appears that he uncovered a brick wall 5 m high. In 1992 the fortifications were further excavated by a team of Japanese and Sri Lankan archaeologists, who may have identified a defensive sequence of over 1500 years (Coningham 1993; Ueyama and Nosaki 1993). These studies suggest that Anuradhapura, like many other early historic cities, had a defensive complex consisting of a moat and a rampart capped by a wall.

In 1993 and 1994 the British sub-project working within the Anuradhapura Citadel Archaeological Project (ACAP) decided to study the course and fabric of the Citadel's fortifications. Our survey strategy had two aims: firstly, to identify the wall and moat; and, secondly, to evaluate the possible advantages of using archaeological geophysical field techniques in Sri Lanka. The reasons for these aims were threefold. Firstly, we wanted to test the feasibility of using a proton magnetometer in Sri Lanka. As we were aware that a single-sensor proton magnetometer would be unsuitable for detailed work owing to a combination of factors, a gradiometer arrangement normally being more appropriate for small-scale anomalies as well as reducing interference effects such as diurnal variations in the earth's magnetic field (Milsom 1989: 45; Clark 1990: 66; Scollar *et al.* 1990: 455), we decided that for the 1993 field season we would attempt to record a feature which should be identifiable as a clear anomaly – the moat. Our survey sectors were therefore selected to cross the postulated line of the fortifications at right angles to allow its identification. Secondly, following our involvement in the interpretation of the excavation section across the southern rampart in 1992, we intended to identify the course of the wall around the entire site in order to

draw attention to its course for preservation and protection from either housing development or use as a quarry for building materials, as is currently the case for the southern rampart. Thirdly, we wanted to plan the course of the wall in order to estimate the extent of the area it enclosed.

This chapter is divided into five sections. The first covers previous investigations of the Citadel's fortifications, the second describes the various techniques and methods used to investigate their course, and the third and fourth describe the investigations on the north, south, east and west sectors of the site. The fifth and final section introduces evidence for dating the defensive complex of the Citadel.

4.2 Previous investigations of the Citadel's defences

Although textual descriptions of the city had been available from 1837, following the publication of the translation by George Turnour (1779–1843) of the Pali text of the *Mahavamsa*, the secular urban core of the monastic complex of Anuradhapura – the Citadel – was not successfully identified until the early twentieth century, when Parker traced the southern wall through a combination of surface observations and the *Mahavamsa*'s historical topography (Parker 1909: 274). Surprisingly, it was not until 1960 that the identified rampart was first investigated, despite the fact that it had been surveyed and incorporated into one of the first detailed Archaeological Survey Department's plans of the area (Hocart 1924). The then Archaeological Commissioner, Dr Godakumbura, initiated an excavation on recently acquired land which incorporated one of the southern gateways and part of the southern rampart. One north-south trench was cut between the Godage private road, which runs parallel to the rampart within the walls, and the irrigation channel to the south of the rampart (Godakumbura 1961). The 5.66 m deep trench located two parallel lines of ashlar blocks some 3.5 m apart, packed with filled earth and occasional stone slabs. Godakumbura proposed that the modern irrigation channel running parallel to the rampart probably followed the line of the old moat. He also appears to have assumed that the rampart was a single-phase construction and suggested that the parallel lines of ashlar slabs lay at the centre to give the construction strength while the base was probably of brick. A larger east-west trench was cut in order to expose a portion of gate and a 17 m wide street passing through it at right angles to the rampart. At the centre of the gate a brick structure measuring 8 x 5.33 m was identified and has been interpreted as a check-post. The excavation was never fully completed or published, and no attempt was made to date,

phase, record or conserve the structures uncovered. The unprovenanced finds stress the mixed nature of the deposit and include sherds of Rouletted ware, Sassanian-Islamic blue glazed ware and early Islamic white glazed ware or early South Chinese white glazed ware (*ibid.*). A large section on the eastern side of the Citadel was excavated by Godakumbura's successor, Dr R.H. de Silva, in the 1970s. Although the structures exposed were conserved, the excavation report is still pending; however preliminary results suggest a wall some 5 m thick and 5 m high with a 2.5 m parapet on the inside (Pl. IVb). The foundations were dated to the second century BC. In 1992 the southern fortifications were further investigated by another ACAP sub-project, directed by a team from the Japanese Overseas Co-operation Volunteers (JOCV) (Coningham 1993; Ueyama and Nosaki 1993). This team selected for excavation a very well preserved section of wall which we had surveyed in 1991 and 1992, close to the Sanghamitta Road which cuts north-south through the Citadel. In addition to clearing a stretch of 20 m along both sides of the wall, later conserved for public presentation, they excavated three sondages, pit A, pit B and pit C, down to bedrock (Ueyama and Nosaki 1993). Although no samples were selected for chronometric dating, the excavators suggested a date from the late Anuradhapura period for the final phase of the fortifications (*ibid.*: 99). The results of this excavation are re-examined in more depth in section 4.8 below.

Having thus summarized the history of archaeological investigation of the Citadel's fortifications, we may now detail the results of our own two field seasons of work on them.

4.3 Methods and techniques

As part of the contour survey of the Citadel, members of the Archaeological Survey Department and British-Sri Lankan Anuradhapura Project carried out a detailed clearing operation and survey of the Citadel from 1989 onwards. Part of their brief was to trace and plan the extent of the site itself. During this work it became clear that information concerning the nature and orientation of the city's ancient fortifications needed to be recorded. One of the clearest alignments noted was a parallel line of ashlar blocks running eastwards from the Sanghamitta Mawatha bridge across the old southern moat to the southeast of the Godage Walawwa and the location recorded as a prospective excavation site. This site was later excavated by a Japanese sub-project in 1992 (Coningham 1993; Ueyama and Nosaki 1993). It was then decided to investigate the defensive circuit by the use of four methods: surface survey, magnetic survey, resistance survey and a coring survey. In particular we wished to assess the possible contribution of archaeological geophysics to the archaeology of South Asia through a pilot study at Anuradhapura. These techniques, which are virtually non-destructive, now play an integral role in archaeological site assessment

in Europe. They are generally used in two main applications: firstly, the assessment of newly discovered archaeological sites and, secondly, the comprehensive survey of a known site. While the former usually aims at defining the extent of the sub-surface remains, the latter can be used as a base for the creation of a site management strategy to assist with any future development at the site. These techniques have a further advantage over test excavations or sondages: they are highly cost- and time-efficient, so a small team can survey sites quickly. Many of these points have been fully illustrated by two UNESCO pilot missions to South Asia led by Coningham in 1997. These missions, one to Bangladesh and one to Nepal, attest to the effectiveness of this instrumentation in detecting sub-surface monuments within the context of archaeological sites (Coningham and Schmidt 1997a, 1997b).

4.3.1 Surface survey

At each sector we constructed a grid using the concrete posts which had been erected at 30 m intervals across the entire archaeological site. As all our sectors were located in dense scrub they had to be cleared, and while doing this we uncovered a number of ashlar blocks and scatters of brickbats. The surface survey teams planned the visible ashlar and brick debris and alignments and conducted a detailed contouring survey with a theodolite every 2.5 m within the respective sectors. In a number of sectors, the north, south and west in particular, the final phase of the Citadel's fortifications – an ashlar wall – were clearly visible. This surface observation later proved to be very useful when attempting to interpret the archaeological geophysical results.

4.3.2 Proton magnetometer survey

We constructed a grid at each sector using the concrete posts which had been erected at 30 m intervals across the entire archaeological site. After the sectors had been cleared of dense scrub, we conducted a geophysical survey with a proton magnetometer. The survey was conducted with the single-sensor Geometrics Portable Proton Magnetometer, model G816. The model selected had the advantages of providing rapid, accurate measurements (one reading every six seconds) while being a rugged and compact field instrument. It was powered by twelve 1.5 volt batteries and weighed some 4.3 kg. The data from the six survey traverses that made up each of the transects were analysed using Spyglass Transform for Windows. The six traverse readings were taken across the transect as the survey progressed along the transect length. As a single-sensor instrument was used, any anomalies of archaeological origin would be superimposed upon the diurnal variation, this variation being evident as the general rise and fall in the profile along the transect. In each case the transect's magnetic profile, magnetic contouring, magnetic dot density image (higher readings showing as darker areas) and topographical profile have been illustrated.

4.3.3 Earth resistivity survey

We returned to the Citadel in 1994 in order to further clarify the investigations with an earth resistivity survey. The

electrical resistivity of the earth largely depends on its moisture content, which varies between differing sub-soil features. Such sub-soil features, whether human or natural, may appear as anomalies if their moisture content differs significantly from that of adjacent features (Clark 1990: 27). It is possible to detect such anomalies by measuring the varying resistance to the passing of an electric current through the soil between two probes. Although this is an over-simplification, the design of all resistivity meters is based on this model. In practical field instruments four probes are employed: two to pass the current through the ground and two to measure the resistance. Frequently, but not under all conditions, features such as moist ditch fills will register lower resistance readings, while others, such as sub-soil walls, will register higher resistance readings, when compared to the mean background level of resistance. The method is affected by climatic and geological conditions, which can significantly enhance or mask traces of human activities (*ibid.*: 53). Because of increased numbers in the 1994 field teams we were able to concentrate on area surveys rather than linear ones. The area survey is now the norm for resistance survey as it allows identification of possible man-made features with a greater degree of certainty. The equipment used was the Geoscan Research Resistance Meter RM4, which is designed to be a swift, robust and accurate field instrument. The battery had a life of 22 hours and took 14 hours to recharge. For an archaeological survey it is normally used in the 0.5 m twin probe configuration. This configuration provides simple response profiles, has good depth penetration, is not affected by probe orientation and is efficient in use (only two probes fixed on a rigid frame are moved between readings). The spatial resolution of the surveys was 1 x 1 m, giving 400 readings per 20 x 20 m surveying grid. The data was hand-logged on prepared survey sheets and the readings were analysed in the field with Geoplot software. Contours software, written by J.G.B. Haigh (University of Bradford), was employed for more detailed analysis and the creation of the resistivity survey images. Further data analysis and the creation of the profiles was done using software written by P.N. Cheetham (University of Bradford). Micrografx Windows Draw 3.0 was used to create the final publication figures.

4.3.4 Soil auger coring survey

Soil auger coring has long been practised in the Netherlands for building up compilation maps of soil types (Steur 1961). Attempts have even been made at conducting close-interval coring of archaeological sites in order to predict detailed internal site structure (Hoffman 1993). However, the best results are obtained when dealing with sites at a macro-level (van Andel and Runnels 1995).

In 1994 we also wished to test the interpretations of the geophysical and surface surveys with a soil auger. Using a collapsible, 10 m long Eijkelkamp soil auger

for heterogeneous soils, kindly lent by the McDonald Institute for Archaeological Research (Cambridge University), we took cores to bedrock along transects at right angles through the defences and out into the surrounding fields. Each 0.2 m soil core was recorded for Munsell colour, texture and inclusions. Using the results of these cores we were able to reconstruct the stratigraphy from these samples and draw a section allowing us to confirm or refute the presence of the defensive ditch. Drawbacks of this method include the inability of heads to grind through stone, although potential damage to a site or objects is statistically minimal. It is a rapid and cheap method of sub-surface investigation. We found that we could complete a 10 m deep core in about 4.5 hours. We also successfully conducted a complete core profile across the Citadel mound (Fig. 32). These cores, taken at 150 m intervals, allowed us to build up a projected macro-stratigraphic profile for the entire site as well as confirming that the earliest occupation at the site was on a slight rise of alluvial gravels and bedrock.

We have since conducted a similar survey at the Bala Hisar of Charsadda during our collaborative fieldwork with the University of Peshawar and again found very positive results (Ali *et al.* 1998).

4.4 The northern fortifications

The northern edge of the Citadel mound was surveyed in both 1993 and 1994. The 1993 survey area measured 100 m north-south and 30 m east-west (Fig. 33). The profile of the northern edge of the Citadel mound is similar to that of the western edge. The crest of the rampart stands some 5 m above the surrounding paddy fields. The paddy begins at between 71 and 78 m from the beginning of the transect and gradually rises in gradient at 100 m. Once the bush had been cleared it became evident that there were numerous scatters of ashlar blocks on the slope of the rampart. In addition, it appeared that part of the ashlar wall identified at the southern and western edges of the mound was also preserved *in situ* at the northern edge (Fig. 34). A number of slabs orientated east-west formed an alignment 15 m long. This alignment crossed both transects at between 20 m and 25 m from the beginning of the transect. Two transects, each 100 m long and 5 m wide (six traverses spaced 1 m apart), were surveyed using the proton magnetometer. Transect 3 indicates a high degree of magnetic variation along its length both within the Citadel and down the slope onto the paddy (Coningham 1992). A significant band of negative values across all six traverses is noted at 40 m, which could indicate the line of a stone feature. Transect 4 is magnetically less active although still exhibiting some anomalous variations at around 40 m. Both transects peak at around 50–60 m with evidence of larger-scale variations within this band, and both then drop down towards the 80 m point before rising again. These profiles suggest that this may represent changes in sub-surface deposits and not simply a diurnal variation effect.

In 1994 we conducted a resistivity area survey covering 4200 square metres. As expected, the Citadel mound itself gave readings of highest resistance (measuring up to 37 ohms), probably the result of a combination of the dry-

season climate and the fact that the man-made tell site stands some 4 m above the surrounding paddy fields. This area of highest resistance does show some evidence of rectilinear edges to anomalies that may represent structural features (Fig. 35). The ashlar slab alignment identified in the 1993 surface survey failed to register on the resistivity survey. Similarly, the only feature within the paddy fields was a higher resistance along the paddy bunds on either side of the small stream in the northeast corner of the survey area 'C'.

During the 1994 season we also took six auger cores along a 150 m transect running at right angles across the defences and out into the paddy fields (Fig. 36). During the magnetometry and resistivity surveys we had failed to differentiate any clear anomalies outside the rampart, although the magnetometry survey showed some anomalous responses. The auger coring, however, allowed us to identify a feature, probably connected with the Citadel's fortifications. We first plotted the profile of the surface and then the depth and contouring of the bedrock below, as indicated from the cores. It was clear that the bedrock was 1–2 m higher to the south, that is within the Citadel, as opposed to that underlying the paddy fields. It was also clear that the bedrock had been cut to a maximum depth of 2 m by a feature at a distance of between 45 and 90 m along our transect 'D'. This feature had in turn been cut by a feature filled by a silt rich in snail shells, 'E'. The latter feature was 80 m wide and some 3 m deep. It seems possible that the rock-cut ditch is part of the original fortifications, while the shell-filled ditch is a later intrusive phase of fortification.

4.5 The eastern fortifications

In 1993 we surveyed a block 30 m wide and 65 m long with an additional 10 x 10 m block at its extreme southeast corner (Fig. 37). The eastern sector represented both the easiest and the most difficult area to work in. Although we were able to clear collapsed material and bush from an old excavation trench and expose a 4 m high brickbat wall running north–south, the gradient recorded by the contour survey showed a very gradual profile (Fig. 38). It also appears that the road on the eastern edge of Sector C had been built over part of the rampart. On clearance we found few ashlar blocks, and none *in situ*. As we were also unclear as to the course of the rampart at the southeast of the Citadel we conducted a surface survey of a further area to the east of the main block of C. When this fresh area, measuring 90 m north–south and 30 m east–west, was cleared, we found a low bank with a north–south alignment of blocks which have been interpreted as marking the course of the wall. Three magnetometer transects were taken over the sector; only Transect 6 is described (Cunningham 1992). Transect 6 (k–l), measuring 65 x 5 m (six traverses spaced 1 m apart), was located 5 m to the north of Transect 5. The readings show relatively small

variations from 0 to 30 m, with a negative dip at around 18 m that could indicate a buried stonework feature. Between 30 m and 57 m stronger, larger-scale variations are apparent in the profile. A steeper drop in background levels beyond 57 m is more than may be expected to result from diurnal variations and so may represent a general change in the sub-surface deposits.

In 1994 we investigated the eastern sector using an area resistivity survey covering 2100 square metres. The area survey, together with a resistance profile along the line of the auger transect (see below), is reproduced in Figure 39. This, one of our most successful surveys, indicated significant, substantial sub-soil features. The most obvious feature was the 30 m long high-resistance linear anomaly, aligned north–south, between 20 and 30 m east of the sector's western edge (marked 'A - A'). This anomaly, notwithstanding what is interpreted as a large robber pit (low-resistance anomaly 'A1', which lies on the line of the resistance profile), correlates with a number of ashlar slabs lying on the surface and most probably indicates the course of the wall. It is possible that a parallel north–south concentration of high resistance some 4–5 m further west may present another line of ashlar and brick. Such a wall would be very similar to the exposed portion visible at the southern sector. From this point to the western edge of the survey some structure is evident in and between a number of high-resistance anomalies that may represent building remains. Two of these anomalies are crossed by the resistance profile. It is very possible that low-resistance anomalies 'D' represent the silt-filled craters of robber pits or areas free from substantial building debris; anomaly 'D1' is substantially lower in resistance than the surrounding areas. An almost 20 m wide north–south alignment of low resistance, noted as feature 'C - C' on the figure, is interpreted as a possible moat or ditch, its edges being well defined on the resistance profile. To the southern edge of the survey area this anomaly is less well delineated, but analysis of the resistance readings in this area suggests that fans of higher-resistance material may have been dumped or slumped into the ditch at this point both from the west and south. A further area of lower resistance (markedly uniform), 'B - B', was identified at the easternmost edge of the sector, separated from 'C - C' by a 7 m wide, north–south aligned band of comparatively higher resistance, 'E - E', that also shows up well on the profile. It is significant to note that the feature A'-A', the fortification wall, runs due north–south across the survey grid, indicating that the line of the defences follows the 75 m contour at this point. This categorically refutes, for the first time, the postulated line of the eastern fortifications as indicated by Hocart, who suggested that the fortifications followed the 81 m contour, thus giving the Citadel a pentagonal shape (Hocart 1924). It now seems more likely that the Citadel was originally laid out as a rough square, but that the southeast corner has been badly damaged by erosion and agriculture. Only further detailed survey in this area is likely to confirm the exact course of the fortifications.

The eastern sector was subjected to an auger coring transect measuring 140 m. A total of ten cores were taken

along this length and the stratigraphic profile was plotted (Fig. 40). The resultant profile identified three very clear features which related to the results of both geophysical surveys. We first identified a 2 m deep and 70 m wide cut into the bedrock under the present edge of the Citadel mound 'M'. It is assumed that this represents an old moat or ditch, and it was identified as low-resistance anomaly 'C - C' on the resistivity survey and as a more active portion of the magnetometry profile. This feature was then in turn cut by a new ditch or moat, 'N', measuring some 65 m wide and 3 m deep. This second feature was filled with silts and snail shells, suggesting the presence of slow-moving or still water. This feature is clearly the low-resistance anomaly 'B - B' and is possibly represented by the magnetic response change beyond 57 m. That the two features were not contemporary is confirmed by the absence of shells in the inner, older moat and the clear shell horizon fill overlapping the inner moat. Anomaly 'E - E', a band of high resistance, was identified during the auger coring as a residual stump of bedrock isolated between the two moat cuts. It is clear that these two cut features are very similar to the double cut feature identified in the northern transect. It seems probable that the shell-filled features are later fortifications replacing the earlier, presumably silted moats.

4.6 The southern fortifications

A brief surface survey of the southern edge had been made in 1991 by members of the Archaeological Survey Department and British sub-project and had been followed up by excavations in 1992 by members of the Archaeological Survey Department and Japanese Overseas Co-operation Volunteers (Coningham 1993; Ueyama and Nosaki 1993). However, this area was not suitable for us to examine in 1993 since the wire fencing or power lines that run along the entire length would have distorted the proton magnetometer survey. In 1994, however, we were able to examine this area during the resistivity and soil coring surveys (Fig. 41). The southern sector represented our largest area survey covering some 7400 square metres, running from the edge of the Citadel mound down to the Thuparama and Sanghamitta stupa complex to its south (Fig. 42). The results were remarkably successful, but only in combination with the results of the auger coring survey. Our survey sector was disturbed by a number of modern features, the irrigation ditch, the road, the foundations of buildings close to the cross-roads 'O', and grit thrown up from the excavation of the ditch 'P'. Other archaeological features included the southern extent of the rampart and fortifications 'Q' and a 30 m wide, east-west anomaly of high resistance, 'R', running the entire length of the survey area. This feature masks, or partially masks, areas of low resistance 'S' - areas which we know are linked from the auger coring survey. One such area appears to have been delineated by lines of high resistance,

probably walls 'T - T'.

Many of the high- or low-resistance anomalies identified during the resistivity survey were confirmed as archaeological features during the auger survey (Fig. 43). We took over a total of 18 cores along a length of 130 m from within the Citadel mound to the Thuparama complex. Initially we took one core every 2 m; however in certain localities along the north-south transect we cored more intensely. The base of the moat feature, for example, was sampled by no fewer than eight cores. While constructing the overall transect section we plotted only selected macro-features. Initially we plotted the ground surface and then the surface of the bedrock. It became clear that the surface of the bedrock sloped from north to south. The bedrock under the Citadel's rampart was some 2 m higher than that close to the Thuparama. It was also clear that there was no gentle gradient between the two ends of the transect; rather a large, scooped 'U' measuring 60 m wide and 3 m deep had been cut into the bedrock. This feature corresponds with the low-resistance anomaly 'S' identified during the resistivity survey. The bottom 1 m of this feature was filled with silts and snail shells - suggesting the presence of slow-moving water. This feature is clearly a silted moat. Owing to the paucity of finds from the cores, we are unclear as to the age of the cutting of the structure, however we are more clear about its abandonment. Feature 'R' was identified as a 6 m wide and 1 m deep deposit of grit and brickbat fragments running east-west across the transect. The surface survey identified numerous ashlar pillars and blocks within the feature. The similarity between this feature and others dating to the later phases of occupation within the Citadel, in particular a pillared alignment parallel to the Vijayabahu palace site, suggests a late Anuradhapura-period date for this feature. As it is clear from the coring that feature 'S' seals the silted moat or ditch below it, this suggests that by the late Anuradhapura period maintenance and use of the southern ditch or moat had already lapsed. It is interesting to note that the moat fill is rich in snail shells. Such a feature makes it tempting to link it with the shell-filled moat features at the northern and eastern sectors. It may be postulated that the fortifications were not relocated on the southern side of the Citadel because of the closeness of the religious structures to its south. In such a case it may be that the southern moat or ditch was just re-cut on the same alignment (Fig. 44).

4.7 The western fortifications

The area surveyed on the western edge of the Citadel in 1993 measured 107 x 30 m (Fig. 45). This area is one of the clearest, with the rampart rising almost 7 m above the paddy. The rampart stops at the edge of the paddy, which is some 54 m wide (Fig. 46). At the extreme western side of the paddy, 127 m from the eastern edge of the transect, the land rises slightly to the road. During 1991 this area had been selected for possible investigation as there were a number of ashlar blocks on the 82 m contour line at the top of the rampart mound. This alignment runs for some 180 m on a north-south alignment. On clearing the area for survey it became clear that the alignment consisted of two lines of parallel ashlar blocks spaced some 4 m apart. The alignment

crosses the first transect between 25 m and 35 m from the beginning of the transect. It is very probable that this represents a continuation of the wall identified in the sixth phase of the southern rampart excavation (Coningham 1993: 114). Although surveyed with the proton magnetometer in 1992 (Coningham 1992), the area was flooded for paddy in 1994, causing us to concentrate our resistivity and auger coring surveys on the northern, eastern and southern sectors.

Two transects were recorded in 1993 using the proton magnetometer, the first 107 m long and 5 m wide, the second 124 m long and 5 m wide, the latter also including a stretch of 20 m east into the Citadel proper. As with Sectors B and C, each transect was 5 m wide, and thus for each metre through the defences at right angles we recorded six readings.

Transect 1 (a-b) was begun on the Citadel. Between 5 m and 15 m the magnetometer registered an acute positive anomaly larger than 160 gamma. This anomaly has been marked 'V'. As this anomaly occurred on the line of a wire fence that we had removed from a line of bushes, it is hypothesized that it represents nails or rusted metal fragments left behind. After this anomaly the readings display only minor variations until we reached a point at 50 m along the transect. Between 55 m and 65 m there are stronger variations with indications of a large positive anomaly. Both sides of this anomaly have been marked 'W'. The readings then exhibit only minor variations until 80 m is reached, when the variations become more marked. At 100 m we reached a house compound and the electrical disturbance produced a further acute magnetic anomaly which has been marked 'X'.

Transect 2 (b-c) was not as revealing as Transect 1. It measured 124 m by 5 m and started 20 m further into the Citadel than Transect 1. Between 0 and 20 m we recorded a strongly variable set of readings. Between 20 m and 35 m we recorded an acute positive anomaly with a negative spike at its centre. This anomaly has been marked 'Y'. As with Transect 1 this is likely to be metal from the fence line running along the top of the rampart. The readings then show variation increasing up to 110 m. At 120 m a house compound was reached and a further positive anomaly was recorded. It is likely that the paddy fields at the foot of the rampart actually represent a silted portion of the original city moat, however only an auger profile will confirm this hypothesis.

4.8 Dating the fortifications

Following the findings of the surface survey, part of the southern rampart was identified as being well-preserved and suitable for an excavation to recover evidence of the dating and phasing of the fortification complex at Anuradhapura. Thus an ACAP team, in collaboration with a Japanese group, began excavation in 1992 with the aim of producing a datable sequence of construction for the Citadel's defences and to conserve and clear a length of rampart for presentation

to the public (Coningham 1993; Ueyama and Nosaki 1993). The coordinates of the deep sounding trenches, Anuradhapura Citadel Rampart South (ACRS) 5A, 4A and 4B, were 17N/16E. The dimensions of the three cardinaly oriented trenches were 3 m long, 3 m wide and 8.1 m deep. ACRS 5A was located on the north edge of an observable parallel line of ashlar slabs, ACRS 4A was located on the southern edge of the slabs 3.5 m due south, with ACRS 4B a further 3 m due south. The coordinates of the presentation trench were 17N/16E. Its dimensions were 24.5 m long, 15.5 m wide and 2 m deep. The trench ran along the line of the wall from the eastern side of the Sanghamitta Mawatha, or road, at the latter's bridge across the old southern moat to the east. As this excavation represents the first published report of a section through the ramparts of the Citadel, it will be examined in detail in this section since it offers an opportunity to date the successive phases of fortifications at the site. This section has been augmented with data recovered by an auger survey conducted at the site by our team in 1994 (Fig. 47).

The individual contexts identified in the three excavation pits may be grouped to form a continuum of eight macro-contexts. They are, in order of age: Reddish Brown Earth, a mixture of Reddish Brown Earth and bedrock, a mixture of clay and sand lenses, an ashy-silt deposit, a decayed brickbat deposit, a further ashy-silt deposit, a gritty deposit and a topsoil humus. These eight macro-contexts are known to form the complete depositional sequence throughout the Citadel mound, and thus we are able to correlate the phases of rampart construction with a particular phased development sequence. During analysis of the data and sections it became clear that the three trenches, originally orientated to excavate the rampart near the latest ashlar phase, had only located the inner toe of the earliest rampart phases. The rampart centre had moved some 10 m north over time, so the description of the earliest phases of its construction is incomplete. The earliest phase occurs only in pit ACRS 4B, where the inner toe of a mound of compacted Reddish Brown Earth was encountered. The visible dimensions were at least 2 m wide and 2.10 m high, with redeposited rocks of bedrock at the highest point. This core was then overlaid by a further deposit of compacted Reddish Brown Earth mixed with flecks of bedrock. This second phase extended into pit ACRS 4A and the visible dimensions of the rampart became at least 7.34 m wide and 2.45 m high. The third phase appears to be a depositional or erosion feature rather than a construction feature. The clay and sand deposit appears to be a mixed wash from the erosion of the rampart which has collected at the inner toe. The deposit is 0.97 m at its thickest and appears to integrate with occupational sequences of the same deposit to its north. The fourth phase consisted of a layer of ashy silt, overlying the second phase mound and the third phase wash. The deposit was 1 m thick and thus increased the visible dimensions of the rampart to at least 3.30 m high and 9 m wide. The inner toe of the rampart joined occupational deposits of the same macro-context to its north. Phase five saw an additional 1.10 m height added to the rampart, making the total height at least 4.40 m. The deposit consisted of brickbats and decomposed brickbat material. The sixth phase levelled and

spread the remains of the brick-built rampart and added an additional 3.5 m thick deposit of ashy silt.

The enlarged rampart, now 7.9 m high, had a wall constructed at the new centre, some 10 m north of the phase one mound. The wall's foundation consisted of an ashy-silt core, containing occasional ashlar slabs, faced with two parallel lines of ashlar slabs. The foundations were 3.6 m wide and were preserved to a height of eight slabs (1.4 m high). The presentation trench cleared a length of 24.5 m of ashlar and brick walling. The Citadel's southern gateway was identified at the westernmost point of the trench flanking the eastern side of the modern Sanghamitta Mawatha. The gatehouse, built of brickbats on an ashlar foundation, was located centrally across the rampart and was 9.06 m long. It was not possible to locate the eastern side of the gate because of the metallised nature of the road and a row of houses on its western edge. It appears to have been divided by two outer walls and two inner walls into three cells: the southern cell was 2.73 m long, the central cell 3.6 m and the northern cell 2.73 m long. The position of one of the gates was identified from an *in situ* ashlar slab with a worn socket. The wall appears to have collapsed and had been partially robbed for building materials. Two badly damaged stone bulls were found in the debris of the wall. A seventh and final construction phase added a layer of grit to the rampart, completely covering the earlier ashlar and brickbat wall. The grit layer was between 1.30 m and 0.20 m thick and gave the rampart a height of 8.1 m. A short central alignment of ashlar slabs was found near the surface, perhaps marking the final defensive wall of the Citadel.

It became clear that the sequence of macro-contexts from the ACRS pits can be correlated with the sequence from many of the Citadel sondages. This correlation may be used to help us date the various phases of rampart construction from the carbon dates and artefacts already recovered from the earlier excavations.

The primary phase of rampart construction was a mound built of compacted Reddish Brown Earth and bedrock fragments on its top (Fig. 48). Reddish Brown Earth is found above the basal gravels and bedrock in the Citadel as either a sterile deposit or an occupational deposit, cut by postholes and with finds of artefacts. The earliest sedentary or semi-sedentary occupation of site ASW2 was during structural period K, finds from which place it in the peninsular Indian Iron Age techno-complex, while radiocarbon results suggest a date of between the ninth and the mid-fifth centuries BC. Finds from the second structural period, J, have been dated to between *circa* sixth and mid-fourth centuries BC (Coningham *et al.* 1996). The primary core of the rampart yielded no artefactual remains or charcoal samples and thus is almost impossible to date accurately. Although both structural periods K and J and the rampart core are cut into layers of Reddish Brown Earth or made from unmixed

Reddish Brown Earth, this does not necessarily give a date of between *circa* eighth and mid-fourth centuries BC for the rampart. As stated above, the Reddish Brown Earth is also found in the Citadel sequence and elsewhere in Anuradhapura as a sterile or natural soil. It is very possible that if the rampart was constructed in a following structural period, its line would be outside the contemporary settlement and thus would involve the excavation and mounding of artefactually sterile deposits. Such sterile Reddish Brown Earth deposits were observed by the first author in the vicinity of the Rajaratta Hotel in Anuradhapura in a freshly cut, 2 m deep pond in 1992.

Phase two appears to consist of a mixture of Reddish Brown Earth and the phase four silty ash. It differs from the primary core in that the presence of fragments of kiln-fired tile and the absence of kiln-fired brick attributes the deposit to ASW2 structural period I. Phase three appears to be a talus of clay and sand overlying the Reddish Brown Earth and silty-ash deposit; it may even represent a cleaning out of the moat. Phase four of the rampart consisted of a raising of the rampart height and a broadening of its base; these works were effected with an ashy-silty deposit. The sixth structural period at ASW2, I, represented a structural watershed with the replacement of round buildings with cardinaly orientated square ones. The soil matrix also changes from the humus-rich Reddish Brown Earth to an ashy-silty soil identical with that used in the fourth phase of rampart construction. Finds characteristic of structural period I were also recovered from the fourth rampart deposit, including a carnelian ring, a fragment of natural glass, an amethyst bead and Rouletted ware. ACRS phases two, three and four can be interpreted as being deposits contemporary with ASW2 structural period I and can thus also be allocated a date of between *circa* mid-fourth century BC and the very beginning of the second century BC (Coningham *et al.* 1996). This date appears to corroborate the chronicle's record of the re-foundation of Anuradhapura as a royal capital by Pandukabhaya, grandfather of King Devanampiya Tissa (*r.* 250–210 BC). The *Rajavaliya* states that 'he cleared a piece of ground, four *gaw* in length and the same in breadth, rooted out the trees, made streets, and constructed other works. He also built a rampart 16 *gaw* (in extent)' (*Raj.* 22). In the *Rajavaliya*'s glossary one *gaw* is calculated as one fourth of a *yoduna*, which itself represents 16 miles (*Raj.* vii). It thus appears that the extent described must be an exaggeration, since it is estimated that the ramparts enclose some 100 hectares.

The fifth rampart phase consisted of the capping of the earlier ramparts with a brick superstructure or wall, although it appears that much of it was levelled to provide a foundation in the succeeding construction phase. The very large size of bricks appears to suggest that this phase can be correlated with the use of such brickbats at ASW2 in structural phases G and F. Structural phase G has been dated between *circa* the first quarter of the third century BC and the latter half of the first century AD, while structural period F can be assigned a date of between *circa* AD 200 and 600 (Coningham *et al.* 1996). The sixth rampart phase consisted of a further enlargement of the fortifications, a higher and wider rampart, and an ashlar and brickbat wall

above (Fig. 49). The ashy-silt deposit used to raise the rampart appears to correlate to the ashy-silt occupation levels of ASW2's structural periods C, D, E and B. These four periods can be dated to between *circa* seventh and thirteenth centuries AD. The finds from the ACRS pits for this phase confirm the attributed date: the artefacts recovered included glass, West Asian ceramics, East Asian ceramics, glass bangles and later glass beads. The discovery of this monumental ashlar wall helps us to understand the reason for the hundreds of robber pits cut into the Citadel's earlier levels, obviously in order to recover building materials for the wall.

The seventh phase, consisting of a further raising of the rampart over the collapsed wall of phase six, is most difficult to date. This late grit deposit cannot be identified in any of the Citadel excavation pits and does not include any diagnostic finds. The phase can be interpreted as either of two depositional features. Firstly, it may represent an attempt to repair the collapsed defences, perhaps carried out during one of the many attempted restorations of Anuradhapura by Polonnaruwa-period rulers, Vijayabahu I (r. AD 1055–1110) (Cvs.58.59), Parakramabahu I (r. 1153–86) (Cvs.74.1–14), Parakramabahu II (r. 1236–70) (Cvs.87.66) and Vijayabahu IV (r. 1270–72) (Cvs.88.83). Secondly, it may represent the spoil thrown up by Henry Parker's irrigation ditch, which was cut along the line of the old moat in 1873.

4.9 Conclusion

All four surveys successfully achieved their aims. It became very clear, however, that the surveys were far more useful when used in combination rather than applied in isolation. The surface survey and resistivity meter identified the ashlar wall, while the proton magnetometer, resistivity meter and soil auger identified the moat. As noted above, because we wanted to test the feasibility of using geophysical prospection in Sri Lanka we selected transects and areas which should have resulted in the recording of the moat, easily identifiable as a massive positive anomaly. It is clear from selected sectors that this has largely been the case. Our second aim was to identify the course of the wall around the entire site in order to draw attention to its course for preservation and to protect it from being built on or from becoming a quarry for building materials. We have completed a plan of these results and sent this to the Archaeological Survey Department. Thirdly, we wanted to plan the course of the defences in order to estimate the area enclosed by them. Initially we had hypothesized that, as the walls represented a fairly late construction phase, they would have enclosed only part of the site, reflecting a postulated decrease in the population of the city. However it is now clear that they enclose the entire 100-hectare site. Until the discovery of the Anuradhapura rampart, dated to between *ca.* mid-fourth century BC and the last quarter of the third century BC, the most southerly

Early Historical walled urban complex in South Asia was Dhanyakataka on the River Krishna, although the fortifications of Banavasi in Karnataka may be proved to be of Early Historic date (*Indian Archaeology: A Review [IRA]* 1971: 29). With the extension of the distribution to Sri Lanka, it is now obvious that the second South Asian emergence of complex societies and urbanism was not just the result of Mauryan imperial conquest, nor purely a northern phenomenon. Anuradhapura can now be added to the list of major Early Historic central places, proving that the distribution of these sites does extend outside the perimeters of North India and indeed the Mauryan empire. The early date of the city's fortifications also suggests that it was established as a major settlement before, according to the *Mahavamsa*, Emperor Asoka sent his son Mahinda to convert the island. As discussed in a preliminary note elsewhere (Coningham 1993), it is possible to use this new data from Anuradhapura to re-examine the possible factors behind the presence of the early fortifications at the Citadel.

Defence appears to have been, logically perhaps, one of the earliest explanations for the massive Early Historic ramparts of South Asia. Certainly there can be little doubt that the walls, gateways and bastions of Sisupalgarh in Orissa were defensive. Indeed Wheeler, an experienced military man, classified the site as a fortress-town (Wheeler 1959: 134). Allchin has added further corroboration to this hypothesis for the emergence of the fortified city by stating (Allchin 1989: 4) that:

... as the construction of these ramparts coincides with the period of emerging cities and states, and of the internecine warfare, the *matsya nyaya* of the Sanskrit apothegm, when state swallowed up state, until Maghadha emerged as a single overall political power, the thesis that defense was primarily against man, even though to a lesser extent against animals and floods, seems most plausible.

Mate has criticized the thesis that defence was the prime motive for the construction of these fortifications because there was no provision of a parapet and because the gentle slope of the outer face of the earliest examples made them vulnerable to attack (Mate 1970). He interprets the moats as diversion channels to ease rivers in spate and bypass the cities, rather than as part of a formally planned defensive complex. The absence of parapets on the ramparts of Ujjain, Kausambi and Rajghat is put forward as evidence to support this thesis, and he suggests that parapets were only built in the latter part of the first millennium BC. This conclusion appears to ignore the factor of archaeological survival. It is unlikely that early parapets will survive, as they will be eroded or levelled as the underlying rampart is utilized as a solid foundation for further constructional additions to the walls.

Following his critique of the defensive theory, we have seen that Mate replaced it with another prime mover, that of the rampart as a flood barrier or embankment. The early archaeological levels at Hastinapura may provide some evidence for this theory. At the end of period II, characterized by finds of Painted Grey Ware, the 2.6 m high

settlement mound was partially washed away by a great river flood. This natural disaster led to the abandonment of the site and evidently 'must have entailed enormous loss of life and property' (Lal 1955: 15). Further evidence for this theory may be found in the sequence of Rajghat's 10 m high clay rampart. The excavator, Narain, stated that 'a series of alternating deposits of sand and silt against the toe of the rampart indicated that it has been breached several times by heavy floods, which had affected some portions of the habitation' (JAR 1961: 37). Banerjee, the excavator of Ujjain, interpreted the addition of a timber framework to the early rampart of period I as a measure to protect a damaged section of wall from river erosion. However, Erdosy has noted that, as the framework was located on the inward bend of the river, it protected the city from erosion, not flooding as Mate had hypothesized (Erdosy 1988: 114). It may also be noted that there are a number of examples of early walled sites in areas not affected by flooding. Rajgir, for example, was equipped with a defensive rubble wall running along the tops of the surrounding hills (Ghosh 1951: 66). Erdosy accepts Mate's critique of the defensive prime mover but also criticizes the latter's flood-barrier hypothesis as inadequate to explain the sheer monumentality of a number of the fortifications (Erdosy 1988: 114). He also calculates that the rampart at Ujjain would have taken a labour force of 20,000 men over 250 days to complete (ibid.). In view of the vast expense incurred he appears to favour a symbolic prime mover and comments (ibid.) that:

Mumford's stress on the symbolic significance of city walls, later developed by Wheatley into a contrast between sacred (urban) and profane (rural) space, provides the best explanation. Cities can thus be viewed as attempts to recreate the universe in microcosm, which needed explicitly symbolic protection in the shape of the outsized ramparts.

Thus the city represents a model of the universe, the walls of the city represent the boundary of the universe and – by extension – the king represented the king of the universe!

An attempt to allocate a single prime mover or function to the Citadel ramparts at Anuradhapura appears to be rather pointless as there are examples which support all of these factors. The rampart and moat doubtless functioned as part of a defensive unit. The Sinhalese chronicles document warfare from the earliest times, either against indigenous inhabitants, among the Sinhalese themselves, or against foreign expansionists and adventurers. The newly arrived Vijayan adventurers are thus recorded as having fought and defeated the native Yakkhas in order to settle the island safely (Mvs.vii.36–38). A few generations later the Sinhalese are recorded as having successional wars. Pandukabhaya, grandfather of King

Devanampiya Tissa (r. 250–210 BC), thus had to defeat eight uncles before he could claim kingship (Mvs.x.64–72). The chronicles also record that two South Indian adventurers usurped King Surattissa's throne during the last part of the second century BC (Mvs.xxi.10–11). It may be concluded that in order to retain, or obtain, kingship, a strong army and fortress were prerequisites! The function of a rampart as a flood embankment also appears to be satisfactorily supported by examples of natural disasters in the recent history of the island. The Dry Zone of northern and southern Sri Lanka has periodic wet-season cyclones which, in combination with heavy rains, have caused tanks to burst and rivers to flood. In December 1957 the New Town of Anuradhapura was flooded under some 2–3 m of flood water when the Malvatu Oya rose 9 m while in spate, and Parker records that in 1897 over 1 m of rain fell in just 27 hours (Parker 1909: 369). Such examples give evidence that flood barriers would have been very necessary and could have utilized the simple tank embankment technology available at that time. The early symbolic function of the rampart at Anuradhapura is more difficult to evaluate, partly because of the limited nature of the excavations at the Citadel, although there are many later conspicuous examples in the island (Coningham 1993). However we may rely, with caution, on the description of the refoundation of the settlement of Anuradhapura by King Pandukabhaya after his coronation, as documented in the *Mahavamsa* (Mvs.x.73–102). As discussed in Chapter 3.3 above, the king consulted a soothsayer and a site specialist before constructing the city and allocating different social groups and structures to specific loci. The very fortifications and urban plan may have been mnemonic of daily life or rather – as Thapar suggests (1984: 91) – symbolic in that:

The fortifications enclosed the urban settlement and separated it from the surrounding areas ... thus demarcating the urban from the rural... Fortifications also served to segregate excluded social groups such as the Candalas who lived in villages in the vicinity.

Part of the function of the early ramparts was undoubtedly to exclude enemies, prevent flooding and act as a symbol of the king's ritual and cosmic role. However, one factor appears to have been omitted from this list of multivariants – the protection of crops. One of the most obvious features of early historic cities is the enormous hectareage enclosed. Erdosy calculates that 11 Gangetic examples covered over 100 hectares (Erdosy 1988: 134). It is highly improbable that in the early phases of these settlements all of the enclosed area was occupied by housing. Erdosy calculates that Kausambi's defences were erected c. 500 BC and enclosed 250 hectares. However, according to his surface survey, only 50 hectares were occupied in period II (600–350 BC) (ibid.: 60) and only 150 hectares in phase III (350–100 BC) (ibid.: 72). Erdosy's calculation thus leaves a huge percentage of land within the ramparts unoccupied by settlement: 80 percent in period II and 40 percent in period III. It is highly probable that much of this land was occupied by market or kitchen gardens and groves of fruit trees. This pattern also appears to have been detected at

Anuradhapura. The ramparts of structural phase I there enclosed an area of 100 hectares, two thirds of which were occupied, leaving a third unoccupied. Contemporary subsistence strategies in North Central Province generally rely upon three main traditional techniques: tank-irrigated rice, *chena* (slash and burn), and the cultivation of garden plots (Leach 1961). All these options necessitate some degree of protection for the crops, especially in the more isolated settlements in jungle areas. When crops of irrigated rice-fields are near harvesting, a watch is normally kept day and night to ensure that they are not destroyed either by wild pigs and deer or by domestic buffalo and cows. *Chena* or newly cleared areas are far more difficult to protect, but they are vital because they supplement the mainly rice-based diet. Baker recorded that Korrakan, maize, Indian corn, millet and pumpkins were grown on such land (Baker 1855: 35). Although most areas of *chena* are fenced, pigs can dig under them, deer can jump over them and elephants can trample them down. Often, in more remote areas, farmers still build platforms in tall trees where they light fires and shout and shake rattles all night to protect themselves and their crops from wild animals. Village gardens also supplement the rice diet in the form of the yields from coconut palms and fruit trees, as noted by Knox in the seventeenth century (Knox 1911: 141). The former, if unprotected, were often knocked down by elephants trying to reach the succulent tops (Baker 1855: 46). Indeed, elephants were such a menace to the economy of the island in the nineteenth century that the Government offered 10 shillings an elephant tail in certain areas, although this was soon abolished because the Government quickly found the bounty too expensive (ibid.: 67). It is worth noting that it is well within the capacity of an adult elephant to eat over 1000 pounds of fodder in an hour (Deraniyagala 1955). Domestic livestock was also at risk from jackals and leopards, and the English inhabitants of Nuwara Eliya suffered badly from the latter (Baker 1955: 59). In view of the above evidence it appears no surprise that when Robert Knox acquired some land in the hill country and built a house there in 1666, the first action he took was to 'intrench it round with a ditch, and planted a hedge' (Knox 1911: 141). Even so, he records that the enclosed land was often broken

into by sambhur, wild pigs and leopards (ibid.: 26-27). His second house and land were similarly defended against wild animals, and the entrances were protected by thorn fences (ibid.: 149). Similar defensive enclosures are described in connection with a twelfth-century AD village in the *Culavamsa* (Cvs.66.87).

We may therefore surmise that the first fortified settlement at the Citadel of Anuradhapura enclosed an area of some 100 hectares, of which slightly more than two thirds were occupied. Part of the impetus for this enormous work may have been as a symbolic barrier between order and disorder, or a defensive fortification against flooding or against inhabitants from hostile polities or settlements. However, it also provided a physical barrier which wild pigs, deer, leopards, jackals and wild elephants could not surmount, trample down or dig under to reach the kitchen gardens, fruit trees or crops that may have been planted on the remaining unoccupied third of the settlement. It is also clear that the earliest rampart at Anuradhapura represents a large investment of communal action. The ramparts run for some 2980 m, are some 2.10 m high and have an estimated width of 8 m (Fig. 50). Their volume can be calculated at around 50,064 m³. We can calculate the number of man-days taken to build the rampart by using a rate of 0.58 m³ per man-day, based upon observations of nineteenth-century canal digging (Erdosy 1988: 113). They are equal to 86,317.241 man-days or, if one assumes that the rampart was built well within the dry season when excess labour was available, one may calculate that it would have taken a postulated workforce of 575 a total of 150 days. The mobilization of large numbers of people is also suggested from the construction of large tanks for irrigated rice and the watering of growing numbers of livestock and people. The change to the environment and the drop in the water-table is archaeologically visible: the shallow watering holes of structural periods J and K were replaced during period I by deep wells cut through the underlying deposits and into the bedrock. These collective works mark Anuradhapura as the primate city and illustrate the island's earliest example of the ability to mobilize a large labour force in the field. They thus mark the beginning of complex societies in Sri Lanka which culminated in the classical Anuradhapura period.

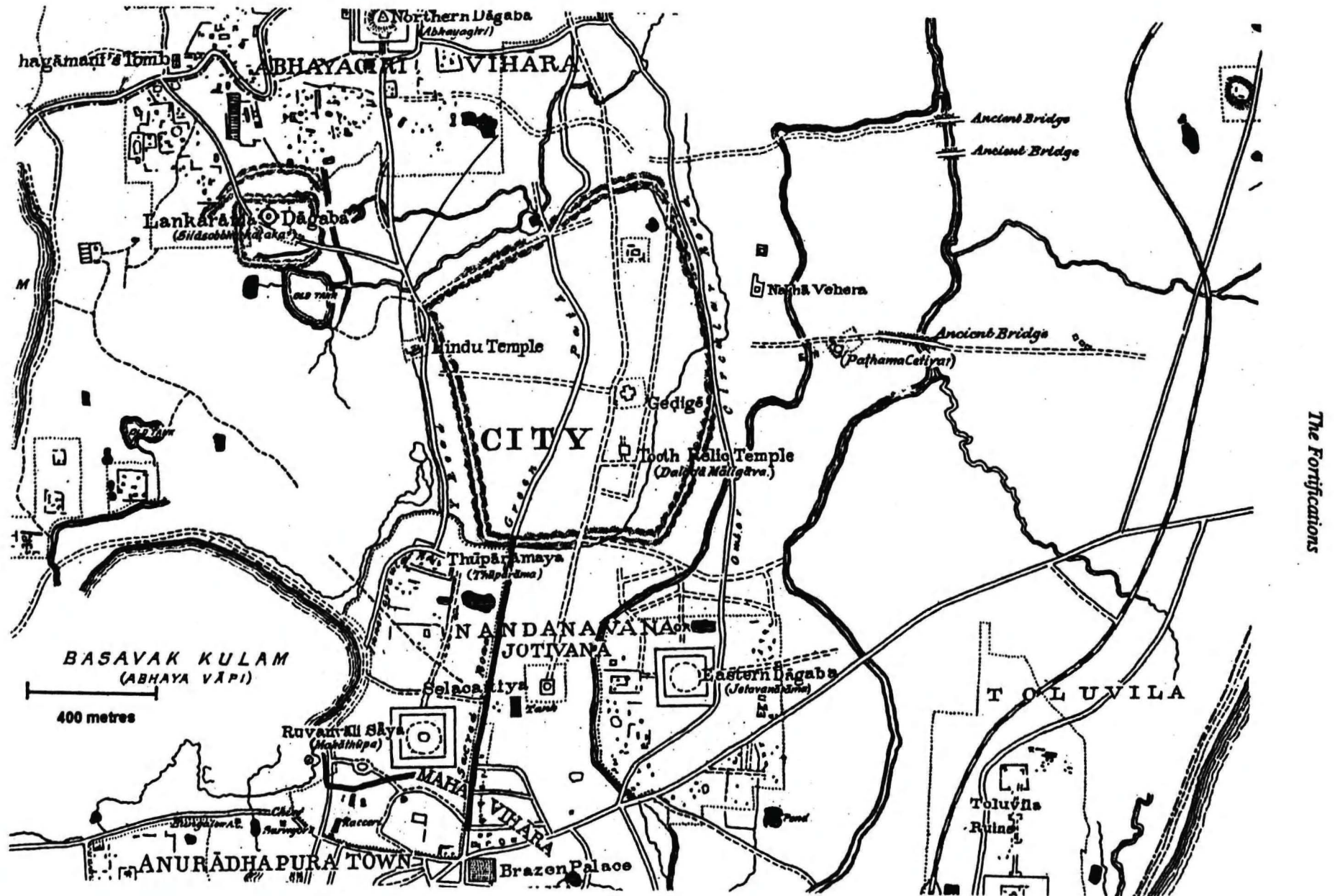


Fig. 31: Plan of the Citadel (after Hocart 1924)

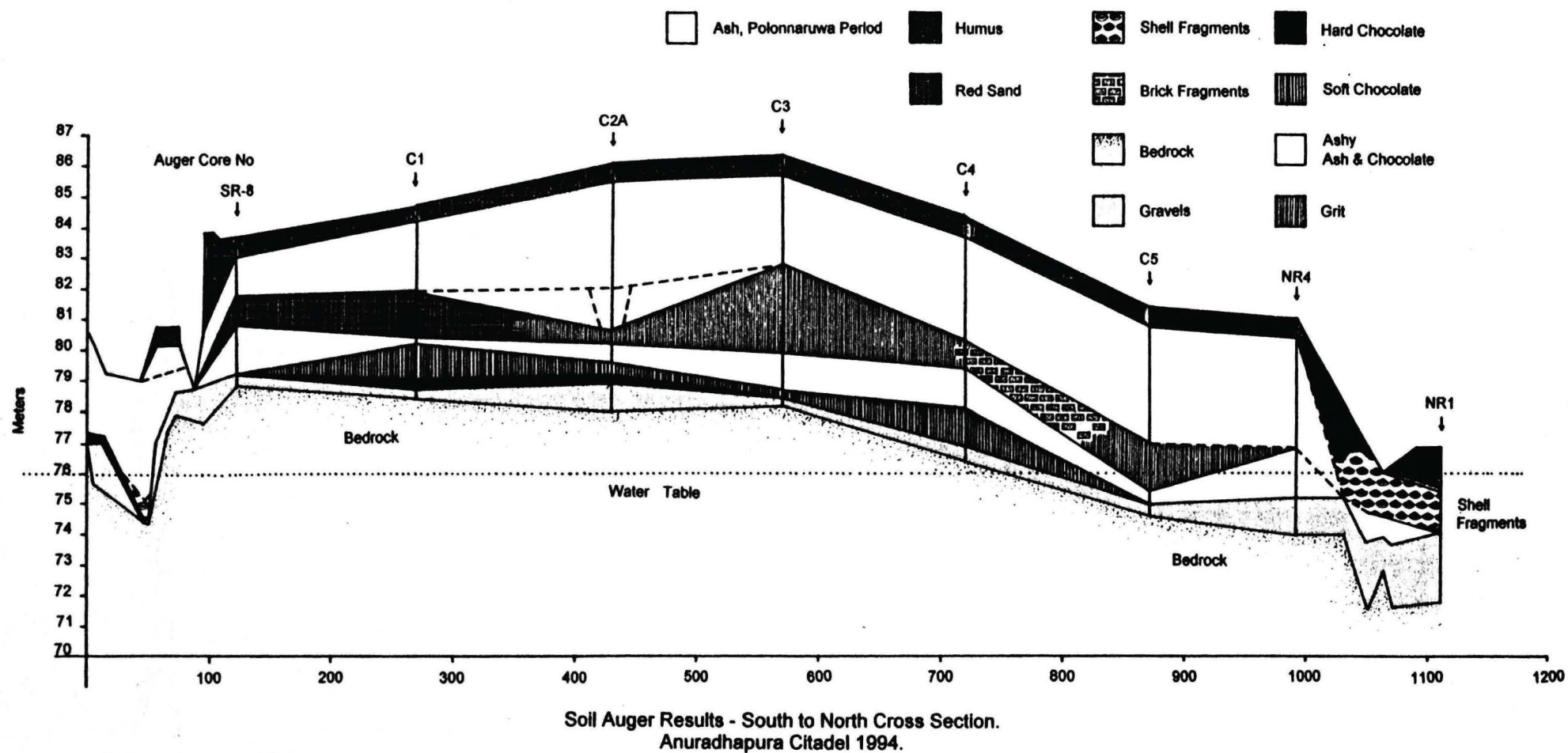


Fig. 32: Auger core profile through the Citadel

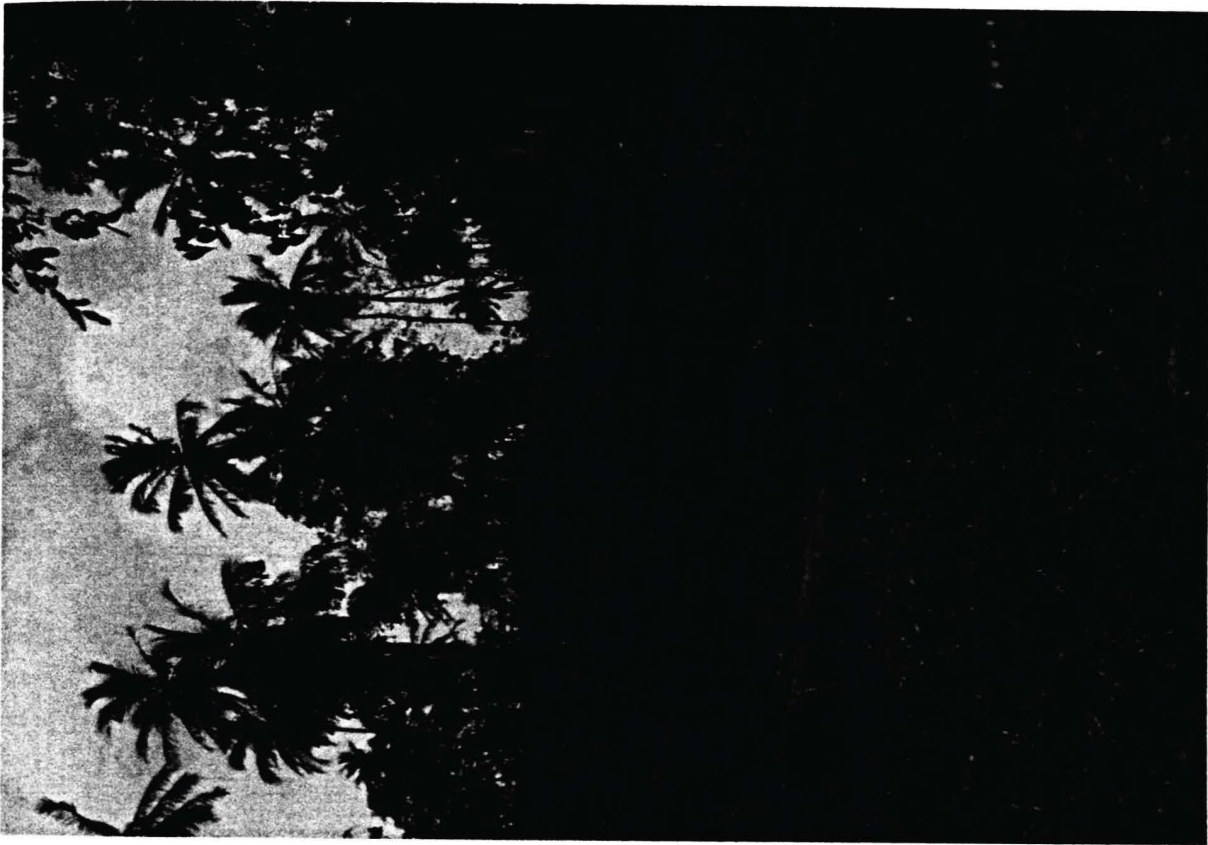


Fig. 34: The northern fortifications in situ

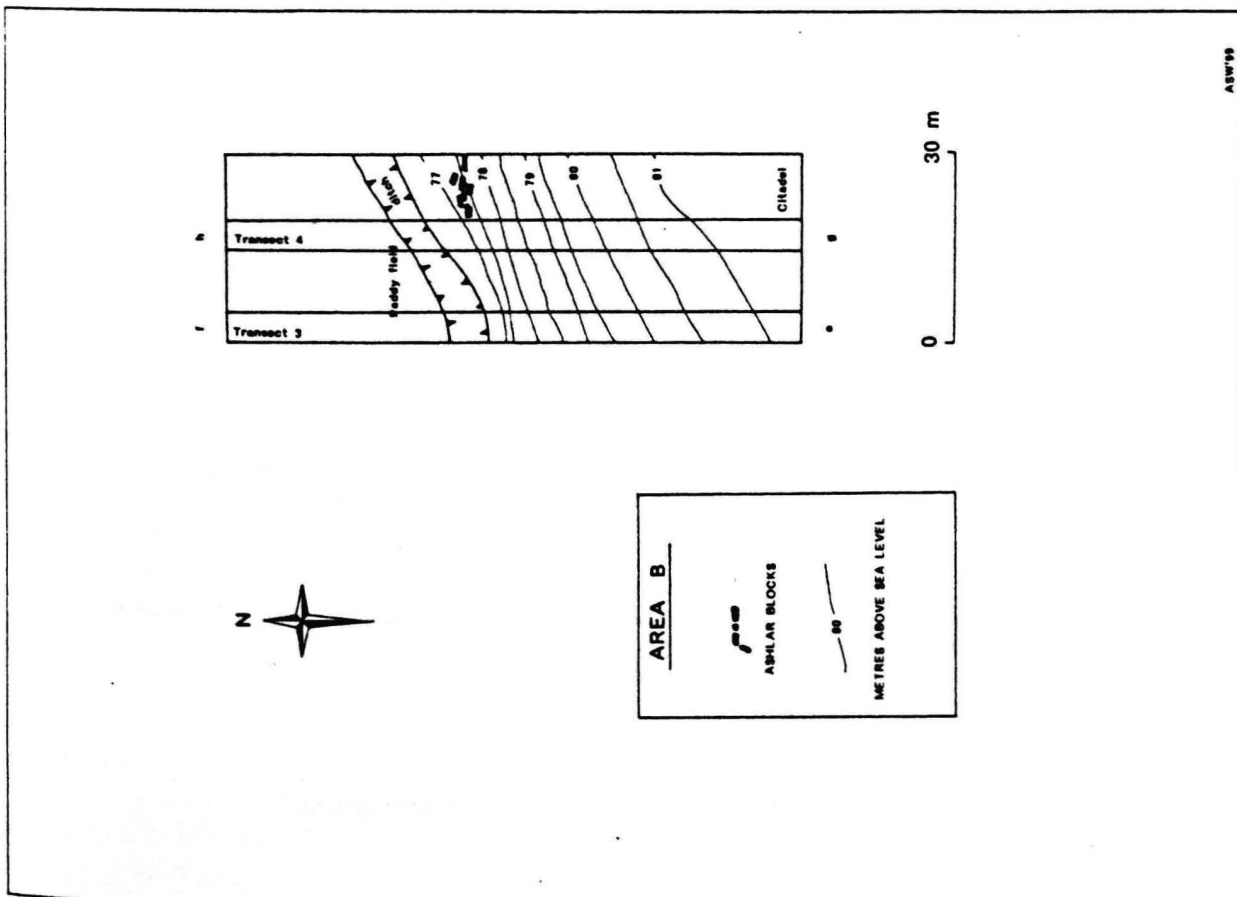


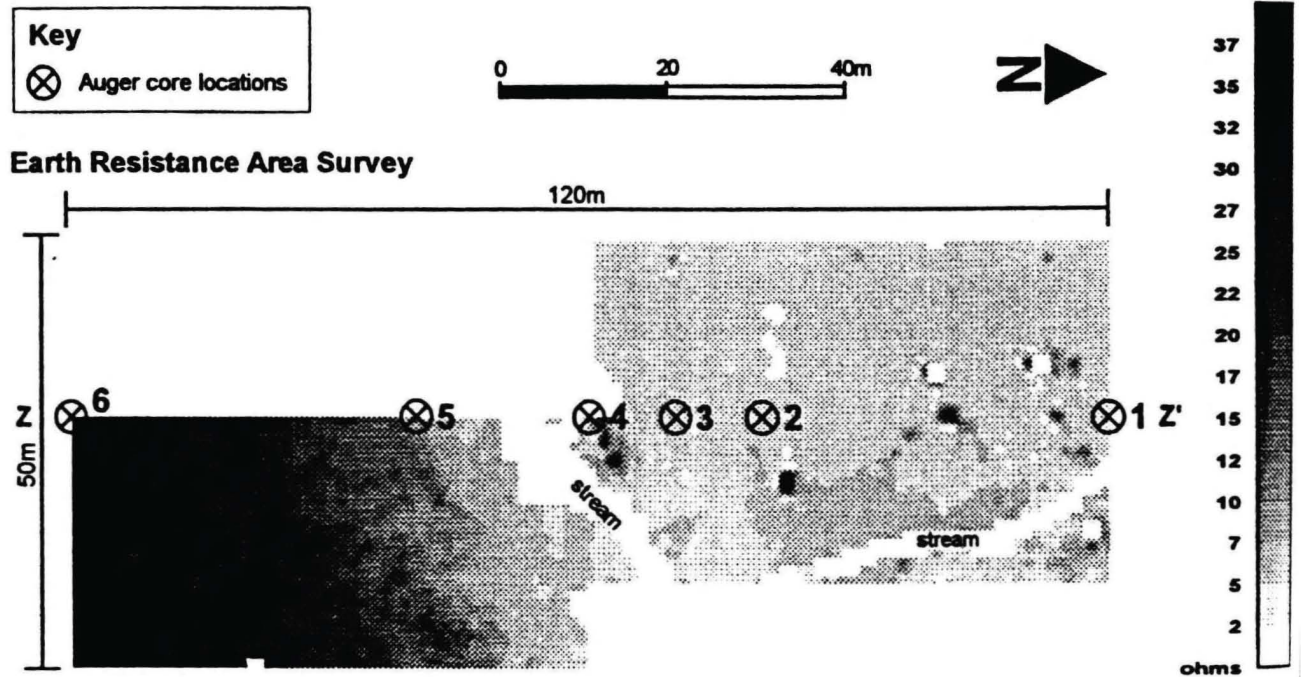
Fig. 33: Plan of the northern survey sector

The Fortifications of the Citadel of Anuradhapura: Northern Sector

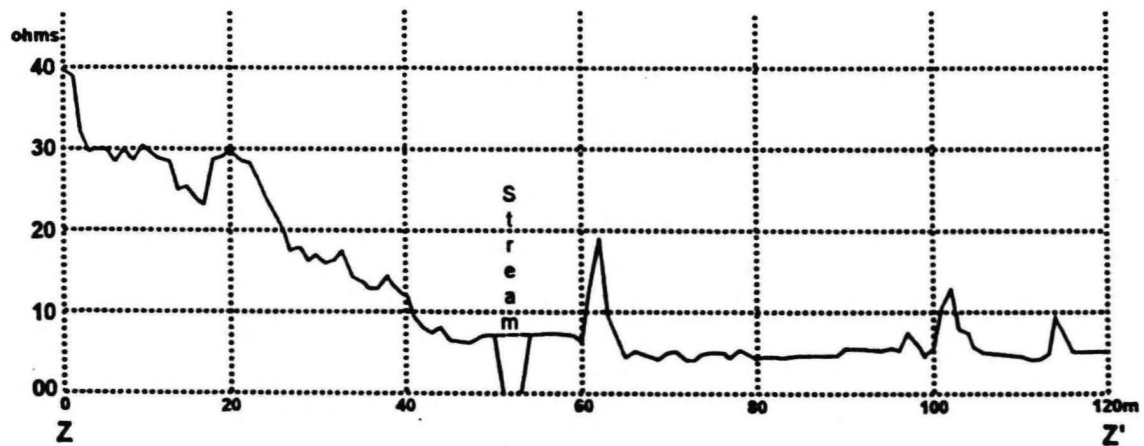
Twin Probe Earth Resistance Survey

0.5m mobile probe separation

1.0x1.0m spatial resolution



Earth Resistance Profile Along Line Z-Z'



Note: The profile shown is the mean of three 1m spaced transect profiles centred on the line Z-Z' (transect profile resistance values extracted from the area survey).

Fig. 35: Resistance survey of the northern fortifications

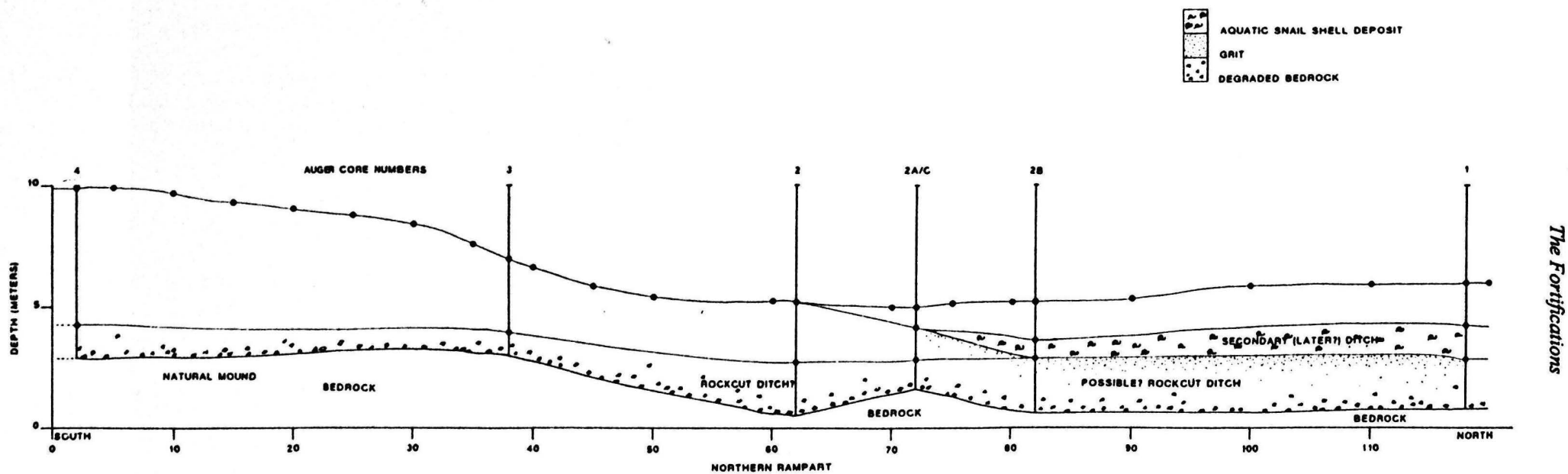


Fig. 36: Auger core profile through the northern fortifications

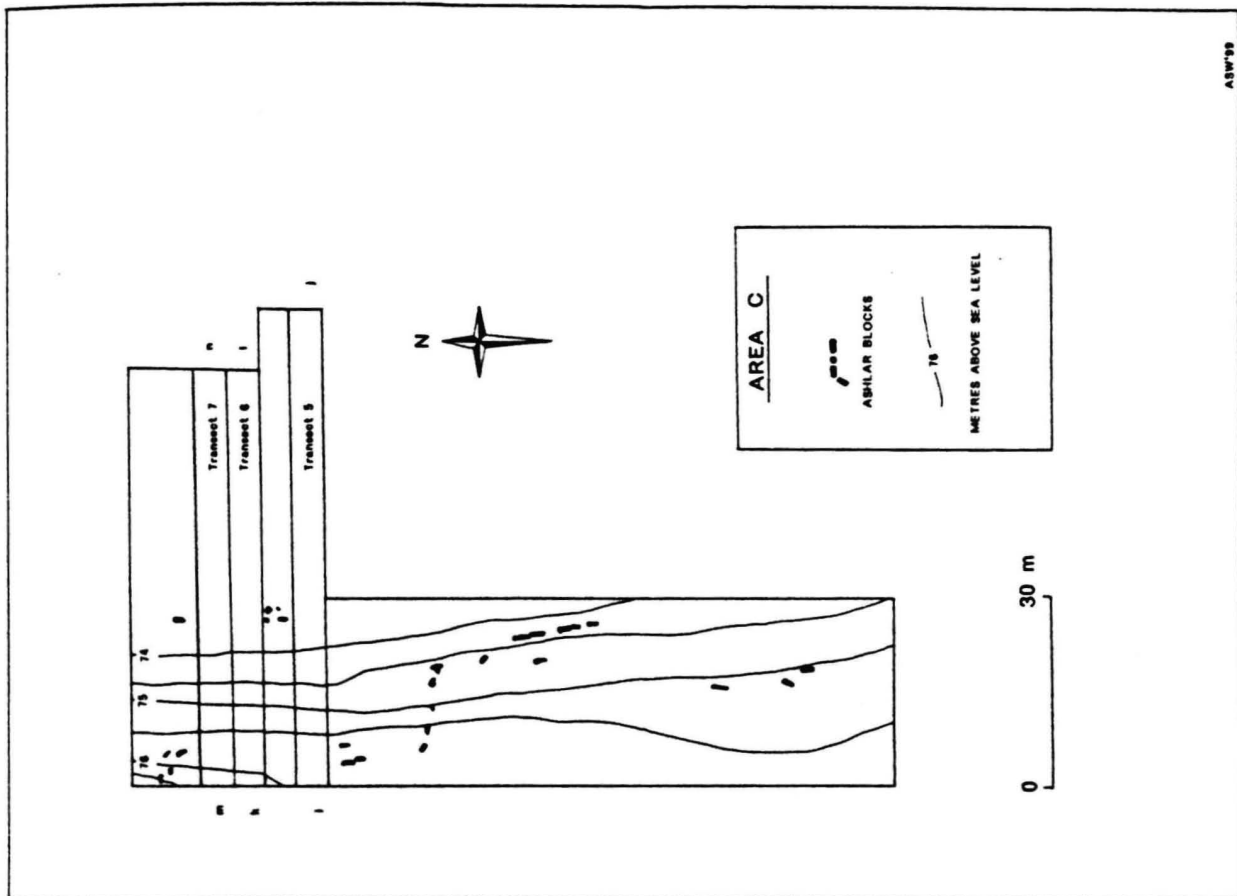


Fig. 37: Plan of the eastern survey sector



Fig. 38: The eastern fortifications

The Fortifications of the Citadel of Anuradhapura: Eastern Sector Twin Probe Earth Resistance Survey

0.5m mobile probe separation

1.0x1.0m spatial resolution

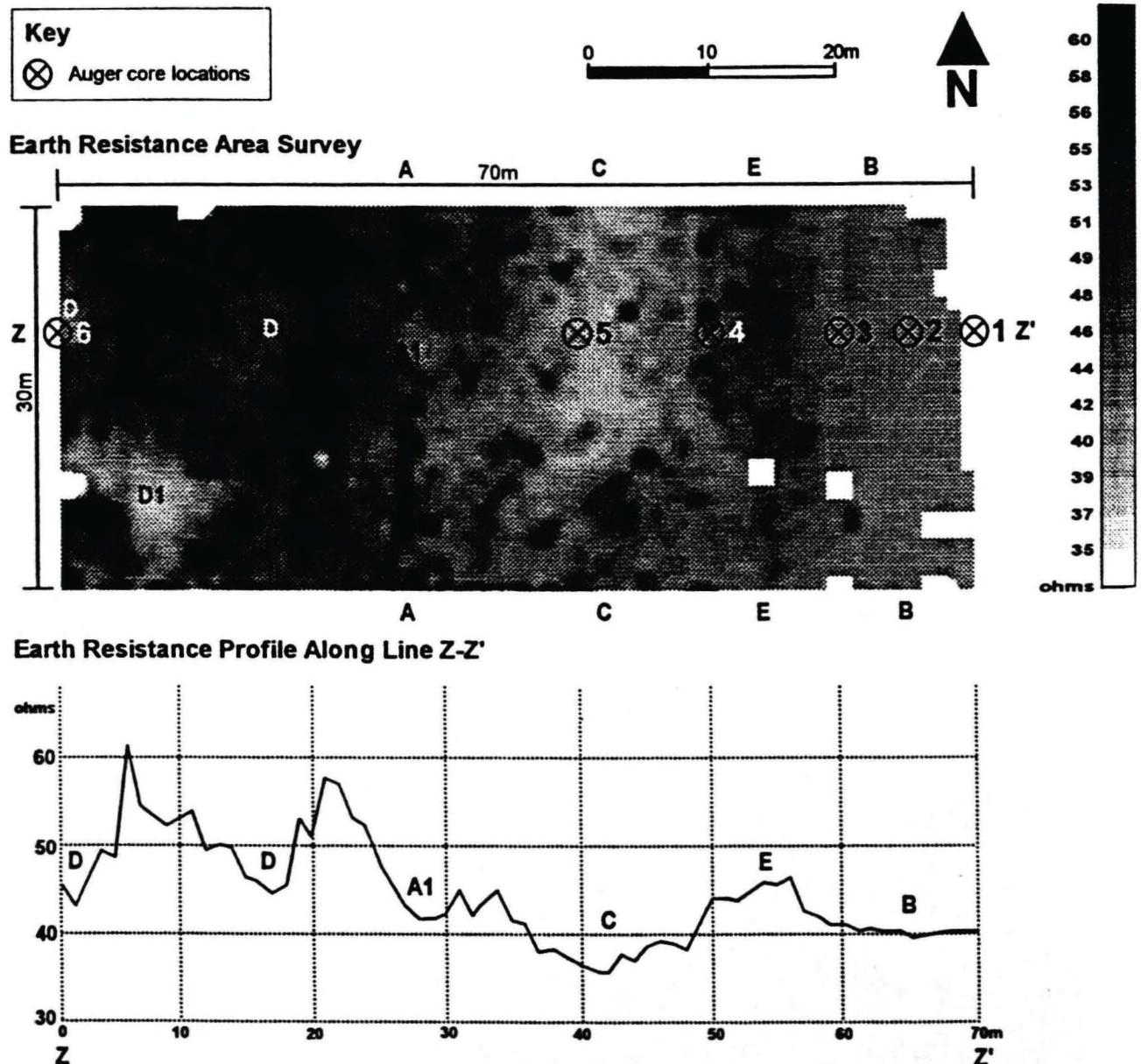


Fig. 39: Resistance survey of the eastern fortifications

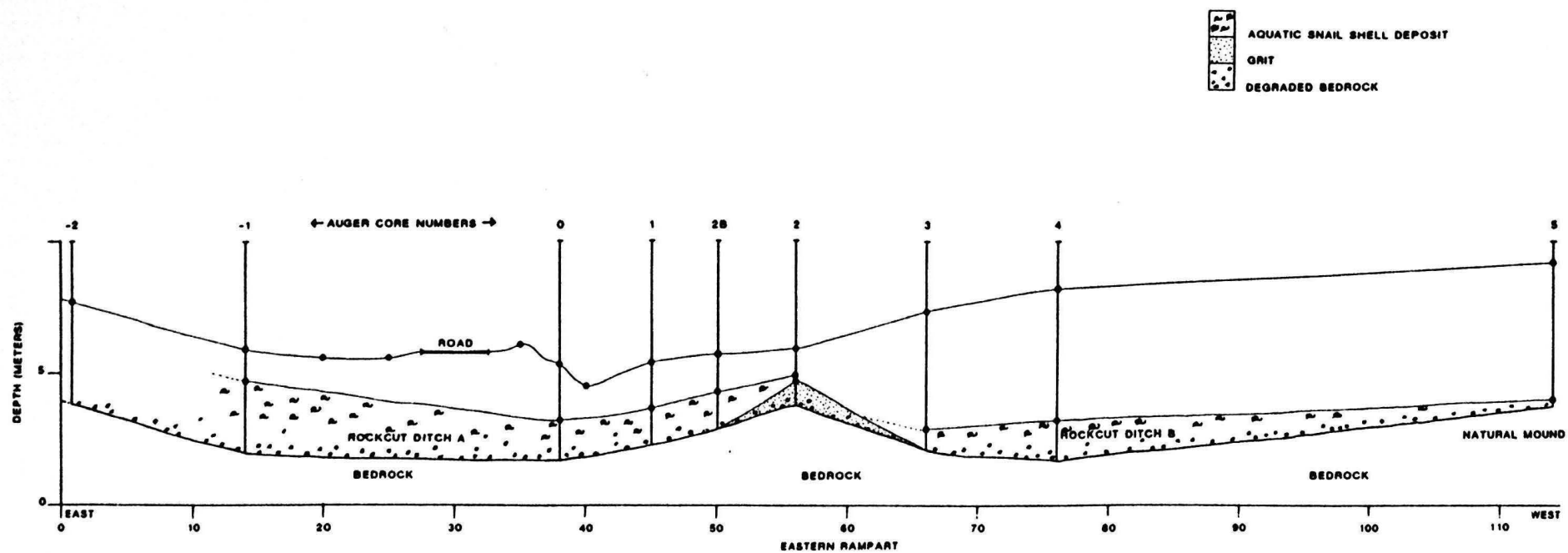


Fig. 40: Auger core profile through the eastern fortifications

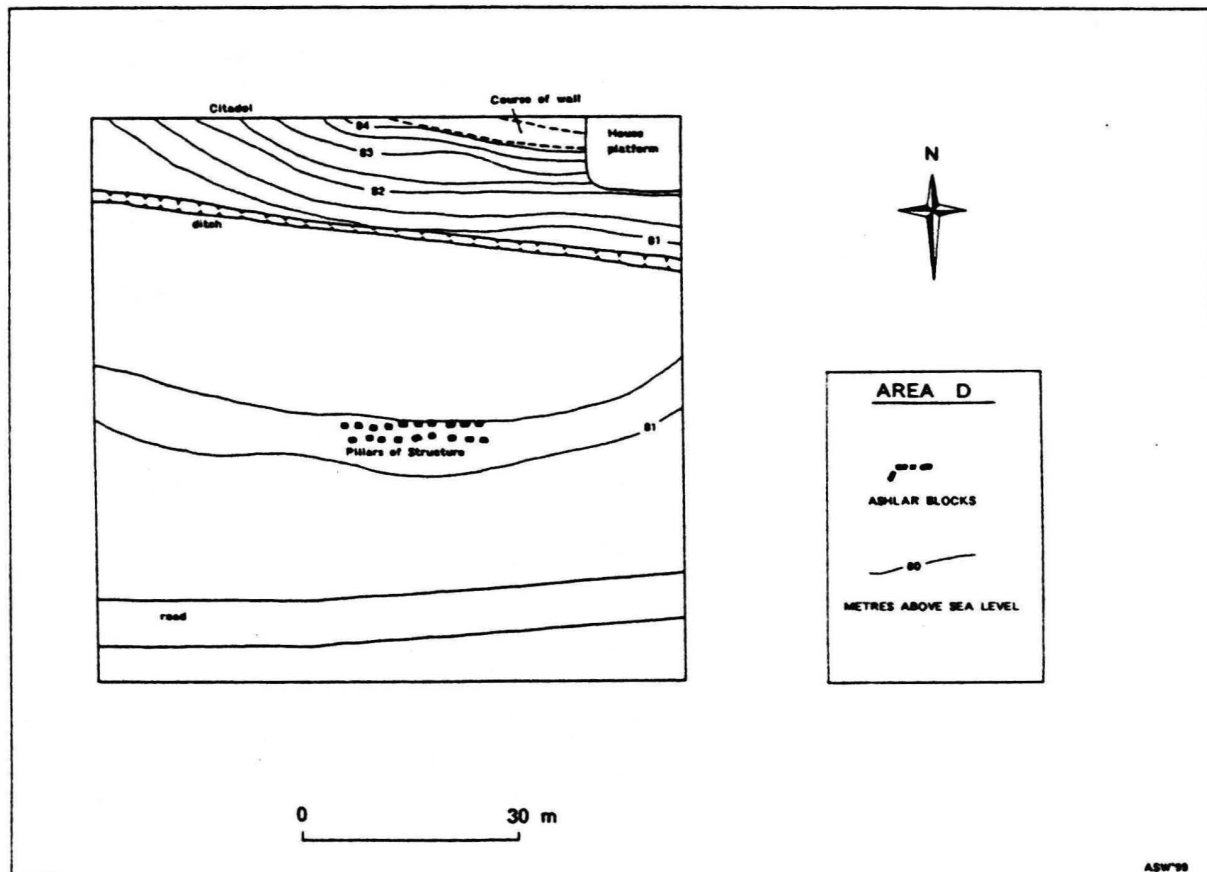


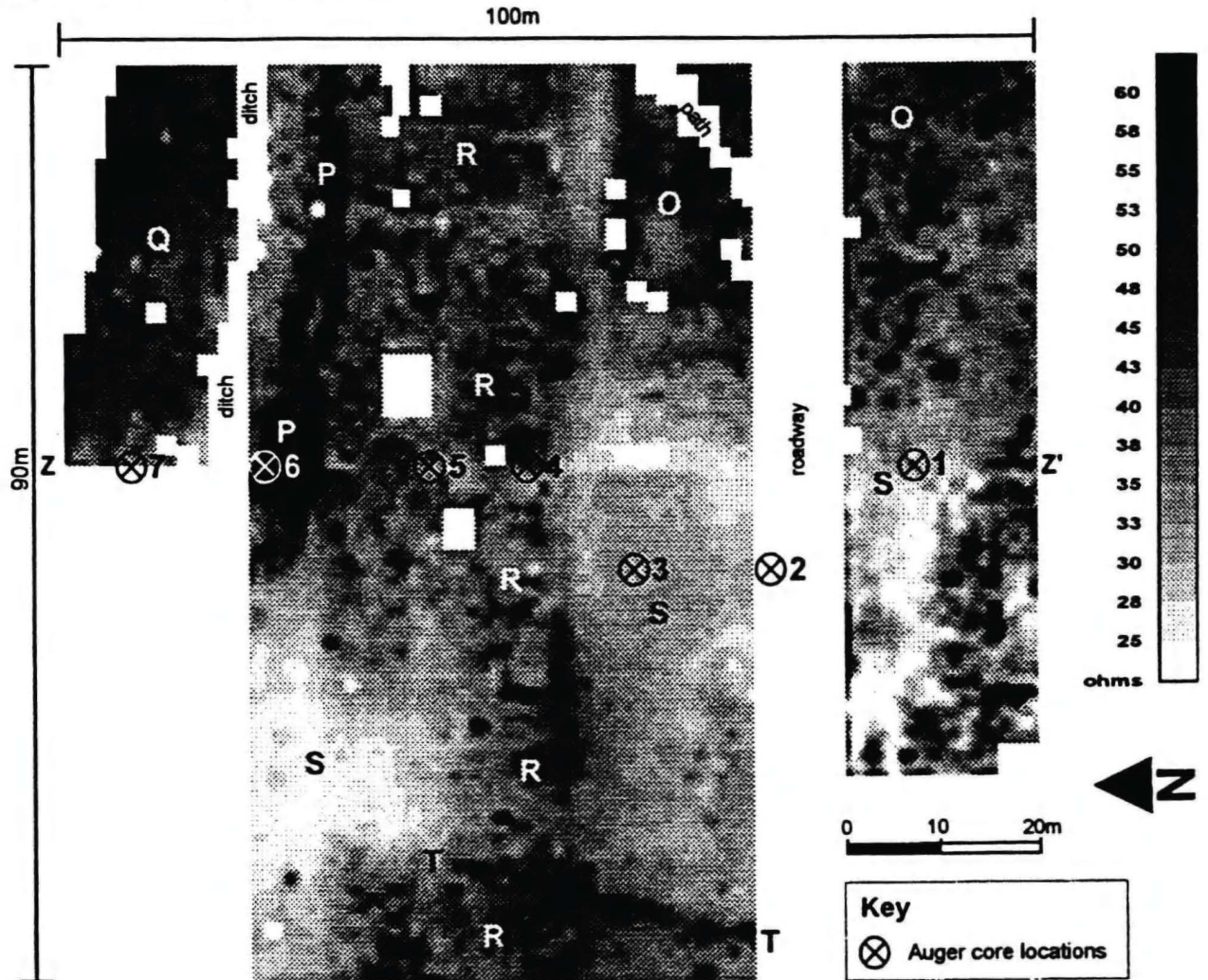
Fig. 41: Plan of the southern survey sector

The Fortifications of the Citadel of Anuradhapura: Southern Sector

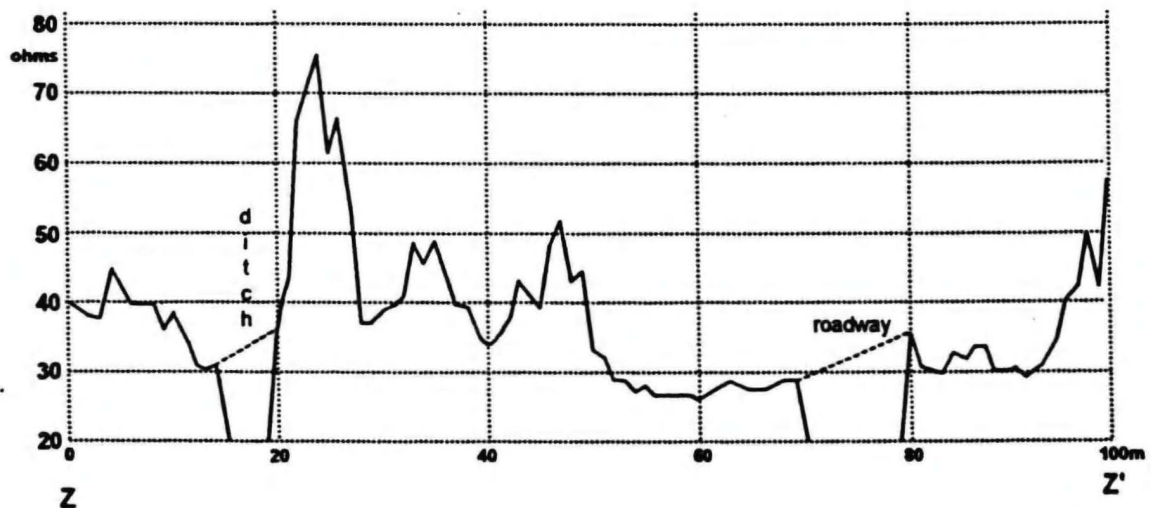
Twin Probe Earth Resistance Survey

0.5m mobile probe separation
1.0x1.0m spatial resolution

Earth Resistance Area Survey



Earth Resistance Profile Along Line Z-Z'



Note: The profile shown is the mean of three 1m spaced transect profiles centred on the line Z-Z' (transect profile resistance values extracted from the area survey).

Fig. 42: Resistance survey of the southern fortifications

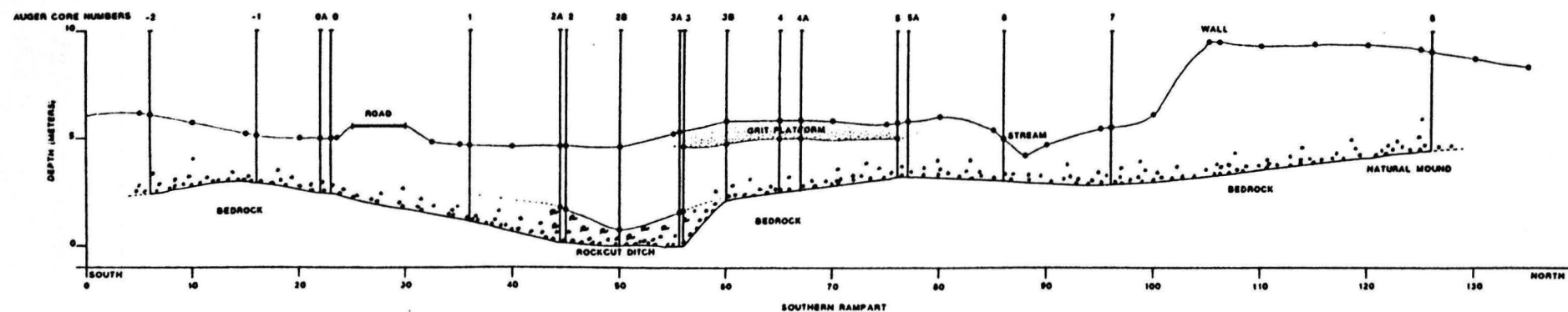


Fig. 43: Auger core profile through the southern fortifications



Fig. 44: The southern fortifications

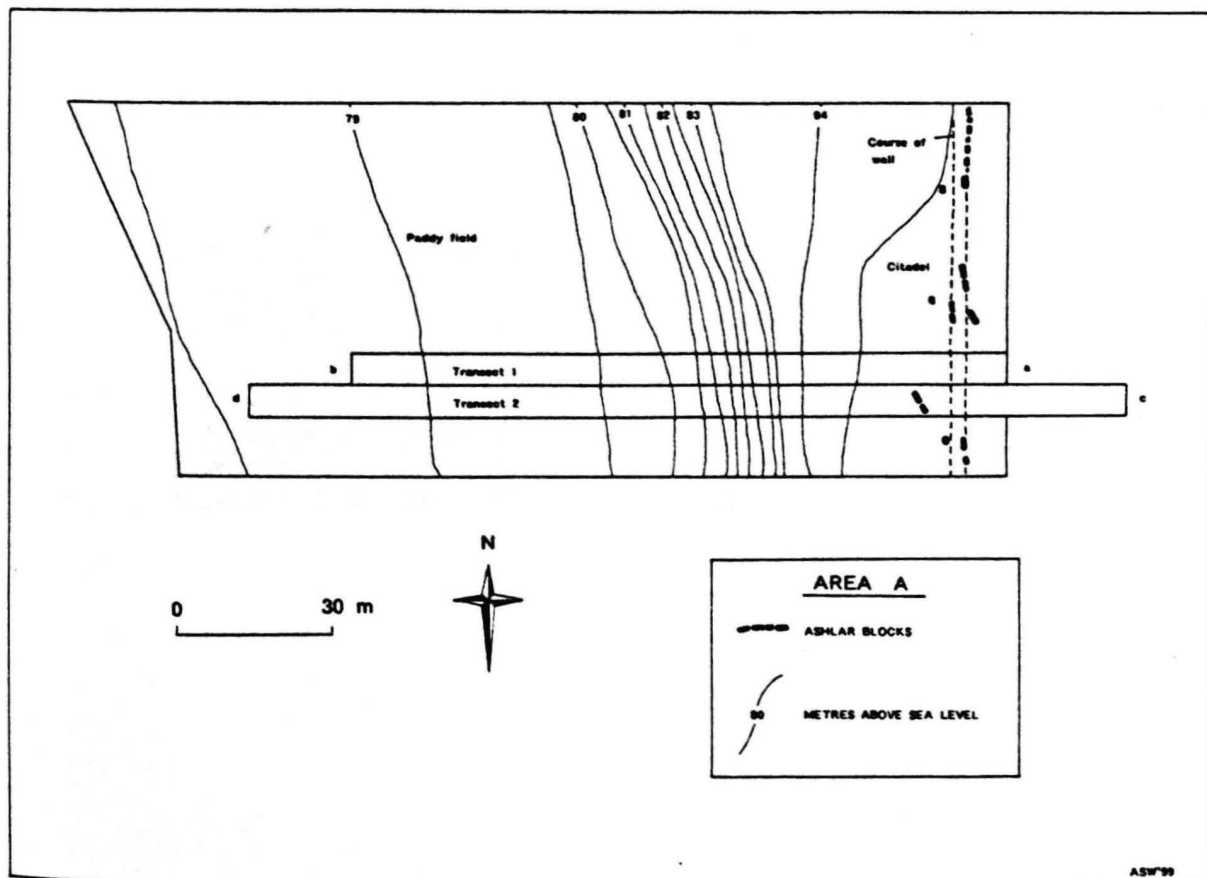


Fig. 45: Plan of the western survey sector



Fig. 46: The western fortifications

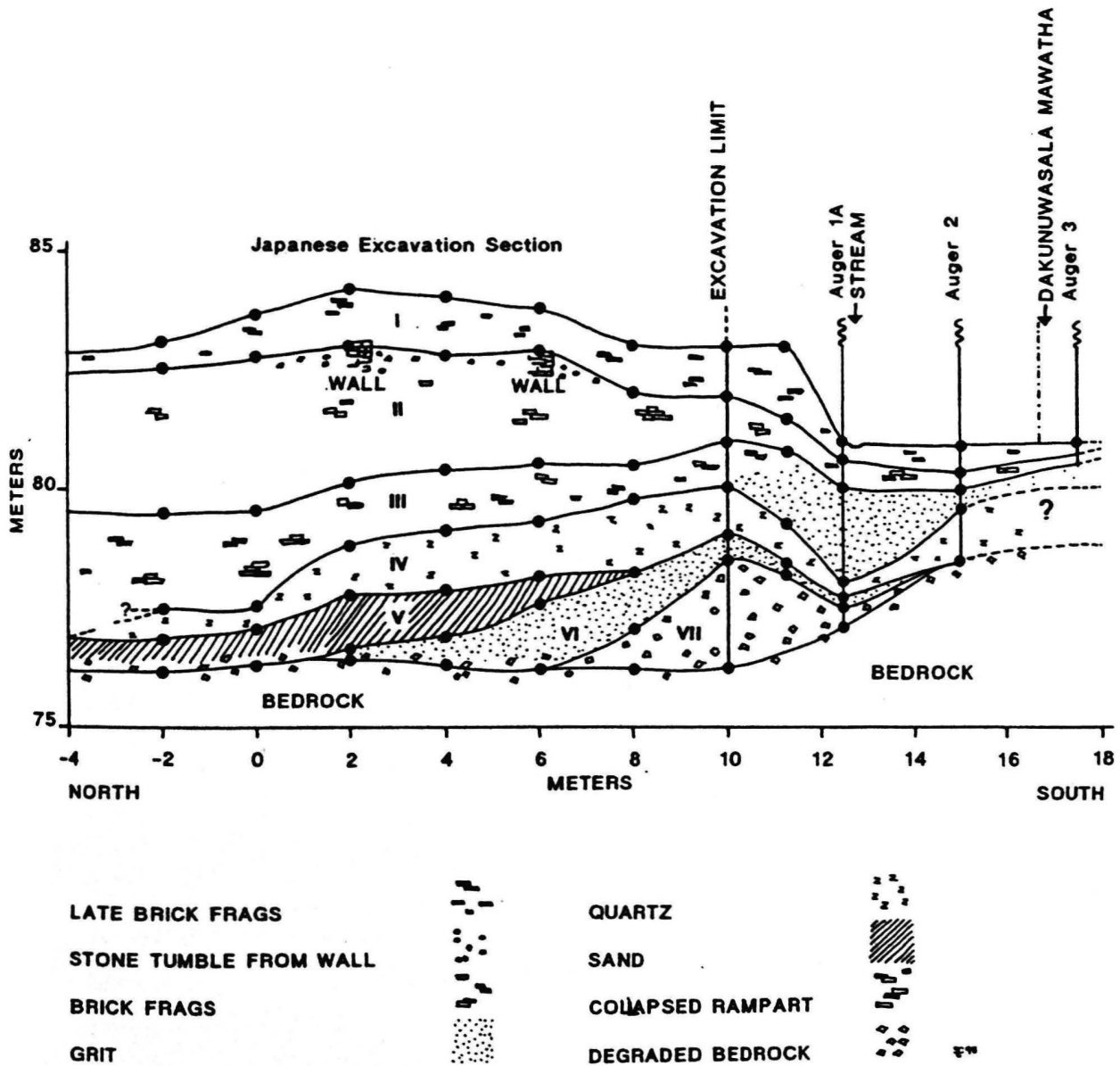


Fig. 47: Section and auger profile through the southern rampart

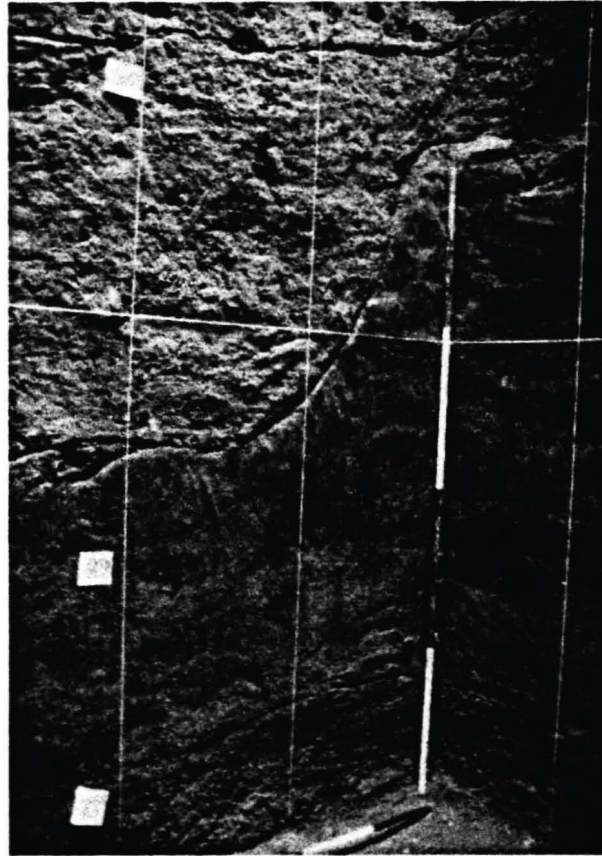


Fig. 48: Primary rampart construction phase

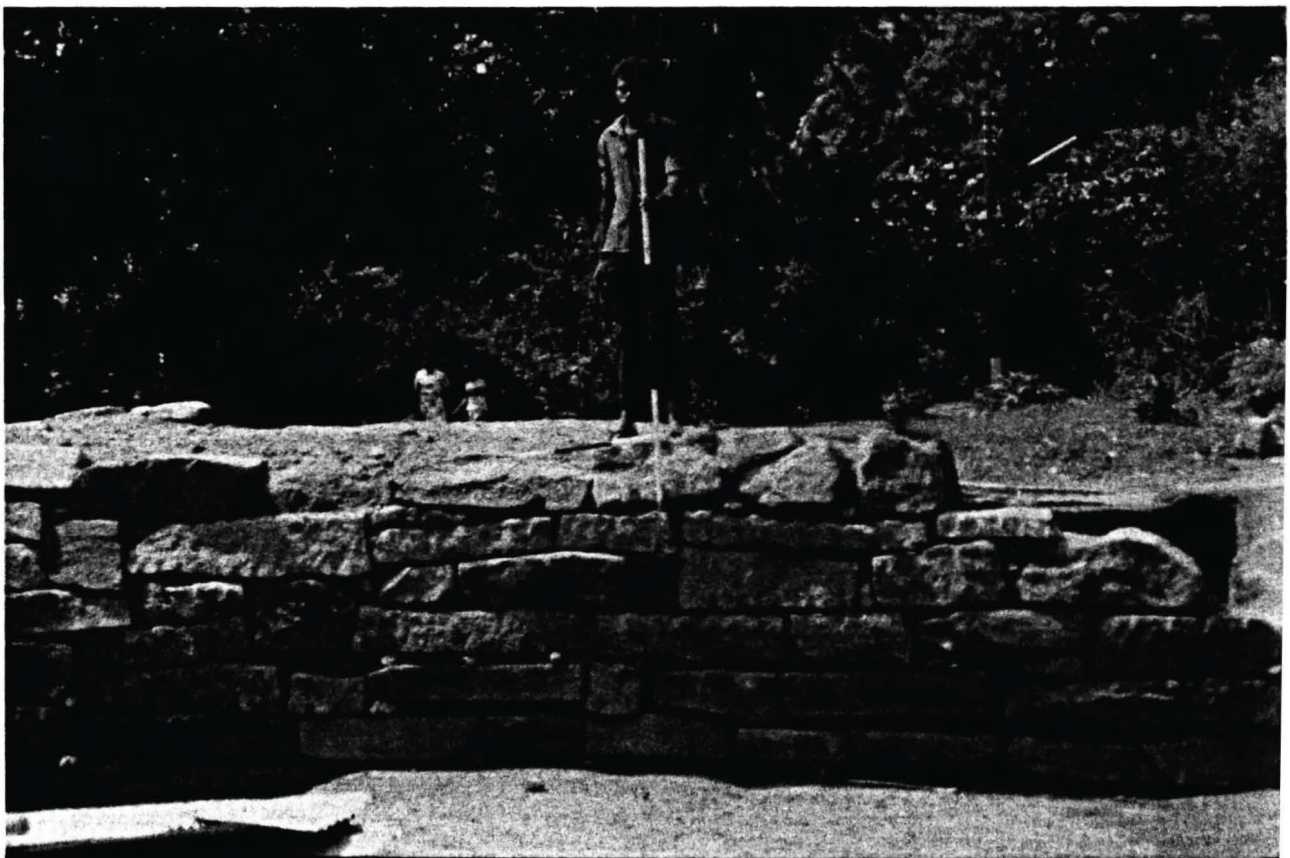


Fig. 49: Sixth rampart construction phase

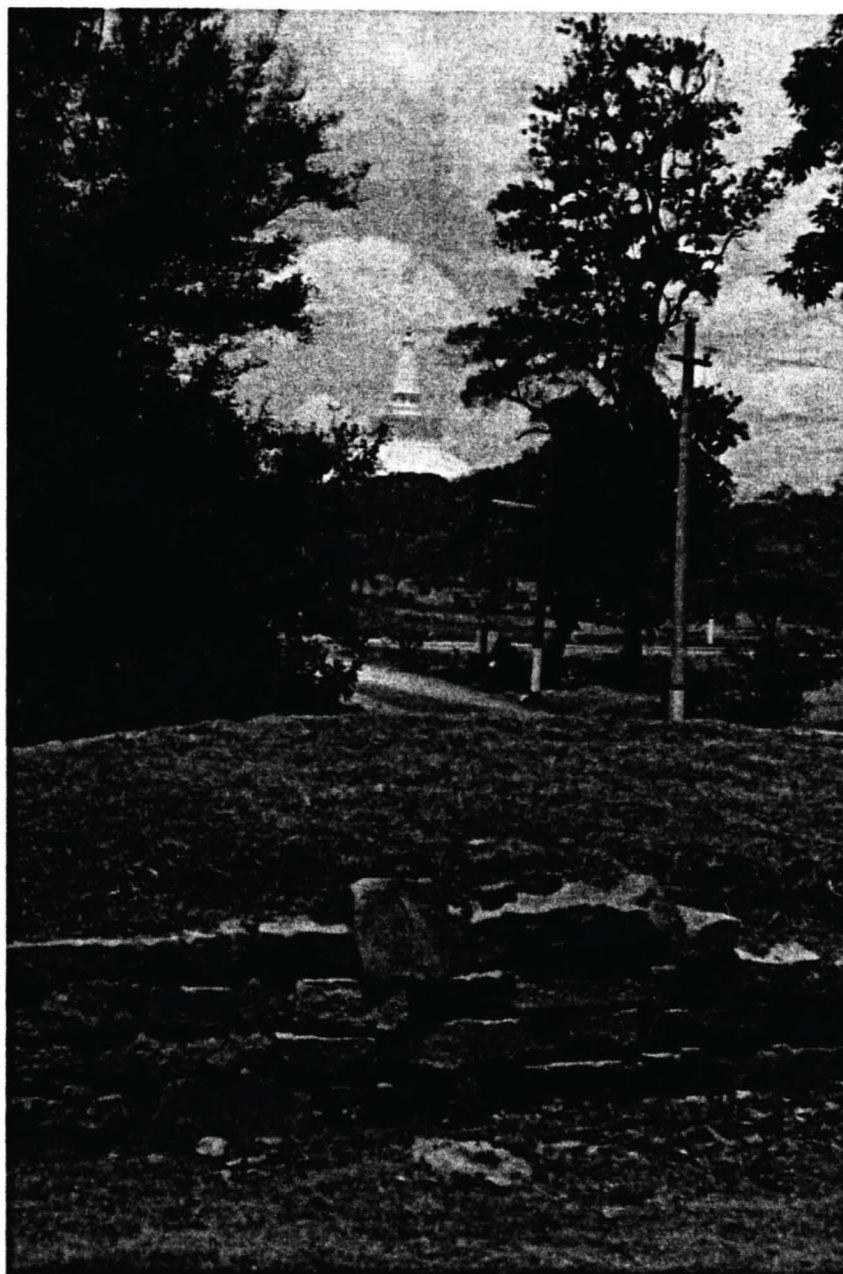


Fig. 50: View from the southern fortifications to the Mahathupa

CHAPTER 5

THE EXCAVATIONS AT ANURADHAPURA SALGAHA WATTA 2

Robin Coningham

5.1 Introduction

The trench Anuradhapura Salgaha Watta 2 (ASW2) was designed with two main objectives in mind: firstly, to recover a structural sequence from the site; and, secondly, to provide sufficient artefacts to allow the construction of a periodized catalogue. In meeting these aims we had to design a trench which was large enough to identify structures – as well as mixed deposits, the result of robber pits, well digging and other intrusive features – but small enough to be covered by a roof to protect the excavation (and excavators) from the sun, rain and, in one case, the falling bough of a tree. The result was ASW2, a cardinaly oriented trench covering an area of 100 square metres, with a 4 sq. m earth pillar (centre-point) to support the central pole of the scaffolding frame roof (Pl. Va). As a roof of corrugated iron sheets was found to let in insufficient light, these were spaced by clear plastic corrugated sheets. At a depth of 4 m it became necessary to step the trench in 1 m to facilitate the removal of spoil. Our second task was to locate the trench in an area where we would be able to excavate a full structural and artefactual sequence. With this aim in mind, on the recommendation of Dr Deraniyagala we located the trench next to sondage ASW1, which had been sited at one of the highest points of the tell, some 87 m above sea level, and which had struck bedrock at a depth of almost 10 m below the surface (Fig. 51). Deraniyagala's sondage sequence, though partially disturbed, suggested that the sequence went back to the initial occupation of the site in the Iron Age (Deraniyagala 1990). The decisive factor was the presence at the site of the exposed tops of four gneiss pillars, suggesting that the pillared structure, and hopefully the deposits below, had not been too badly disturbed by robber pitting (Fig. 52). The trench was excavated for three seasons, and during this time it became clear that all our initial aims and objectives had been more than met. We had excavated a sequence that ran through the site's development from an Iron Age village to one of the key South Asian medieval metropolises.

During the three seasons of excavation and two successive seasons of field surveys the entire mound was gridded into blocks of 30 square metres each. The coordinates of our trench ASW2 were 32N/11E. It was excavated according to the context system down to

bedrock at a depth of 9.5 m below the present surface (Fig. 53). Each differentiated archaeological feature or deposit (e.g. posthole, posthole filling, pit, pit filling etc.) was given a unique context number. A context sheet was filled out for each context number, recording its location, texture, compaction, Munsell colour, cultural context and relationship to other context numbers. All major contexts were recorded on plans and sections and were photographed. Sections of the trench walls were drawn as the excavation proceeded. A Harris matrix was constructed to show the stratigraphic relationships of contexts. All deposits were sieved in order to ensure sample integrity. Each small or special find (sf), carbon or environmental sample was given a unique number in addition to its context number, and its recovery spot was recorded three-dimensionally if possible.

In order to simplify the 1887 contexts, 118 stratigraphic phases, 515 postholes, 77 pits, 42 walls, 38 slots, 17 ovens and 3 wells (and all their single and multiple fills), we have divided the results of the excavation into a sequence of 30 structural phases within 11 structural periods. The following description is given in reverse order of excavation, that is the oldest contexts are introduced first, and full details of the contexts can be obtained from Appendix B. Where possible, an attempt has been made to cite analogous buildings from other prehistoric and historic sites, both within Sri Lanka and elsewhere on the subcontinent, in order to provide a comprehensive periodized structural sequence to accompany the periodized artefactual sequences published in Volume II. With over 100 years of early historic archaeology within South Asia, one would assume that there would be many published excavations with which one might compare ASW2's structural sequence. However, the reality is very different. Owing to a preoccupation with monumental structures, the use of small sondage or test pits in habitation sites and the problem of non-publication or only partial publication, there are very few comparative examples, as will be illustrated below.

5.2 Structural period K

The earliest structural phase, K1, consisted of 29 postholes cut during stratigraphic phase V into old land surface 1811 (Fig. 54). This latter was a 0.00–0.35 m sandy clay layer with a number of exposed patches of

underlying gravel (1887) on the flanks of a north-south outcrop of gneiss boulders deposited during stratigraphic phase IV. The postholes were clustered in two groups, one in the northeastern quadrant, the other in the northwestern quadrant. The latter cluster, consisting of twelve postholes, appeared to define an inner ring of seven postholes (1844, 1846, 1848, 1850, 1852, 1865 and 1867) 0.60 m to the west of a 0.90 m long alignment of five postholes (1834, 1836, 1838, 1840 and 1873). Although the northeastern cluster consisted of a similar number of postholes, eleven, the form of the structure or structures was less distinct but appeared to duplicate a similar pattern, that of an inner ring of postholes (1812, 1814, 1816, 1822 and 1824) surrounded by an outer arc (1820, 1826, 1861, 1863 and 1871). As the postholes had an average mean diameter of 0.08 m and an average mean depth of 0.06 m, they represent, perhaps, little more than the traces of temporary bivouacs that sheltered inhabitants from the sun, wind or rain. It is stratigraphically unclear whether these structures are contemporary; however, their location beside the boulder outcrop may have been for additional protection. Apart from the posthole concentrations, no flooring or occupation areas were identified, any such traces having presumably been destroyed by erosion.

Following the abandonment of the structures of K1, they appear to have been sealed by a 0.02–0.25 m thick sandy clay (1714) during stratigraphic phase VI. The rich humus content of 1714 suggests a natural origin. During the second structural phase, K2, 47 postholes and one pit (1755) were cut during stratigraphic phase VII into old land surface 1714 (Fig. 55). That structures were becoming more solid and perhaps more permanent is supported by the increase in the average diameter of postholes from 0.08 to 0.12 m. K1's northeastern posthole concentration was repeated, although K2's six postholes (1732, 1735, 1739, 1787, 1807 and 1809) and four associated stone slabs did appear to suggest an indistinct circular structure which extended under the trench's northern and eastern sections. As in the case of K1's structures, the function of this structure is unclear. K1's northwestern posthole concentration was also repeated, with a semicircular arc of postholes (1723, 1725, 1728, 1730, 1741, 1743, 1759, 1763, 1765, 1767, 1769, 1771, 1775, 1777, 1779, 1781, 1783, 1803 and 1805) which appeared to centre on a roughly circular burnt area of 0.65 m in diameter. It is presumed that this latter feature can be interpreted as a shelter or screen protecting a burning area, perhaps a hearth. The function of other postholes cut into 1714 remains unclear. Elements of structural repetition in subsequent structural phases suggest an element of continuous occupation at this locality, perhaps even seasonal in use.

Old land surface 1714 and associated features cut into its surface were sealed by the formation of 0.01–0.15 m thick sandy clay 1616 during stratigraphic phase IX, again presumably a natural deposit. Our

third structural sequence, K3, was cut into 1616 and consisted of 43 postholes concentrated in the northern half of the trench (Fig. 56). Unlike the earlier structural phases of K, the structures of this phase were very clear and appeared to form a single complex (Fig. 57). The core of this complex was formed by a circular structure of postholes (1622, 1624, 1626, 1638, 1640, 1642, 1644, 1686, 1690, 1692, 1696, 1698, 1700, 1702 and 1704). Although half of the structure was under the northern section, it has been estimated that its diameter was close to 2.5 m. A line of three postholes (1646, 1648 and 1706) appeared to run 0.75 m south from the circular structure and form the eastern edge of a 0.75 m wide entrance-way. The western edge was formed by two postholes (1650 and 1652) which appeared to be connected with a 3 m long east-west alignment of six postholes (1654, 1656, 1678, 1680, 1708 and 1712), perhaps representing a fence. Three other smaller clusters of postholes in the northern quadrants marked the location of other structures whose function is not as yet obvious. The 3.25 m long north-northwest alignment of postholes (1666, 1676, 1682, 1682 and 1684) may represent a further fence or shelter alignment, perhaps even sheltering the structure represented by postholes 1660, 1664, 1668, 1670, 1672 and 1674. The third cluster consisted of a pair of large postholes (1630 and 1634) and a pair of small postholes (1632 and 1694) flanked by a large posthole (1628 and 1636) on either side. The function of this pattern is unclear, but it should be noted that a similar pattern was identified in structural phase J2. It appears that well 1279 was cut 0.50 m into the surface of 1616, through 1714 and 1811, and into the underlying gravel 1887. The cut then appears to have been lined with two rough courses of smaller gneiss boulders and stones to prevent the sides from slumping (Fig. 58). The clay 1616 was overlain by a 0.05–0.07 m thick clay deposit (1615 and 1617) on the eastern side of the gneiss outcrop during stratigraphic phase X. Although it is not clear what formation processes were responsible, it is possible that it was more or less contemporary with the structures of K3, prior to the sealing of both 1615, 1616 and 1617 by layer 1496. It is unclear what function the three postholes (1658, 1662 and 1670) cut during stratigraphic phase XI into 1615 and 1617 may have had (Fig. 59). Unfortunately no structural analogies are available for this period from within Sri Lanka or peninsular India.

5.3 Structural period J

Structural period J is differentiated from K because of the obvious increase in the diameter and depth of structural timbers, as reflected in the postholes, and secondly, because major structural activities shift from the northeast corner of the trench to the northwest corner. Stratigraphic phase XI was sealed by 1496, a 0.01–0.14 m thick layer of sandy and silty clay during stratigraphic phase XII. A steady decline in the humus content throughout J, in combination with an increase in finds of burnt fragments of wattle and daub, suggests

that the layers now sealing structural phases may represent melt from wattle and daub walls rather than natural depositions.

Structural phase J1 consists of 59 postholes cut during stratigraphic phase XIII into 1496 (Fig. 60). J1's postholes appear to be divisible into two separate groups, those in the northwest of the trench and those in the south. The southern group consisting of 15 postholes appears to form one or two possible alignments. These alignments comprise two possible fences, the straight, 4.5 m long alignment of 1589, 1591, 1593 and 1599, and the 4 m long arc of 1583, 1585, 1587 and 1589. The northwestern group consists of a rough circle of 44 postholes with a diameter of 4–6 m. It is highly probable that this circular concentration represents a round timber structure with a series of ancillary posted structures or alignments.

The structural activities of J1 were sealed by layer 1407 during stratigraphic phase XIV. In turn 1407, a deposit 0.01–0.67 m thick, was cut into by various activities during stratigraphic phase XV. These associated activities form structural phase J2. They are much clearer than those of J1 and suggest permanent buildings (Fig. 61). A circular structure of ten postholes (1405, 1408, 1410, 1412, 1414, 1416, 1424, 1428, 1477 and 1479) with a 5 m diameter was identified in the northwestern quadrant (Pl. Vb). Although at least half of the structure was under the western section, the presence of postholes 1418, 1420 and 1423 suggests that there may have been internal divisions within the structure. A number of other structural activities were identified to the east of the circular structure. An ancillary structure of nine postholes (1416, 1430, 1432, 1434, 1436, 1438, 1440, 1442 and 1444) arranged in a symmetrical pattern was highly reminiscent of that of K3. A further structure, consisting of a large central posthole (1462) balanced by a smaller posthole on either side (1460 and 1464), appeared to be centred on a possible 5 m long arc consisting of postholes 1452, 1454, 1456, 1458, 1466, 1468 and 1470. Three small and one large pit were cut in the eastern side of the trench. Pit 1472 measured 3.75 x 3.62 m and was 0.40 m deep; pit 1484 had a diameter of 1.5 m and was 0.26 m deep; pit 1486 had a diameter of 0.80 m and was 0.35 m deep; pit 1490 measured 0.7 m by over 0.8 m and was 0.37 m deep.

Structural phase J2 was sealed by layer 1293, a sandy clay 0.01–0.20 m thick, during stratigraphic phase XVI. J3 allows us to identify one or two stratigraphic sub-phases, namely postholes 1339 and 1349 cutting pit fill 1372, posthole 1400 cutting pit fill 1391, and posthole 1359 cutting pit fill 1403. However, this does not really help us to distinguish the phasing of all 46 postholes, three pits and one furnace or oven (Fig. 62). Although the concentration of 16 postholes in the extreme northwest quadrant seems to have an indistinguishable pattern, it is probable, when one considers the pattern of J4, that it represents a further structure. A trough-like pit (1341) appears to

represent a furnace or oven and is very similar to others found in structural phases J and I. A circular pit, 1371, with a diameter of 1.25 m and a depth of 0.52 m, was cut close to furnace or oven 1341. It contained numerous sherds in its basal sandy clay fill (1483), however the major fills (1382 and 1404) contained one iron arrowhead (sf 10679), one badly corroded copper alloy wire (sf 10673), one polished stone rubber (sf 10680), one clay disc (sf 10671), three Black-and-Red Ware cups with holes bored through their bases (sf 10675, 10676 and 10677), and two complete ceramic vessels (sf 10678 and 10681), one of which bore graffiti markings (Fig. 63, Pl. IVa) and was sealed with a 0.20 m thick layer of red gravel (1372). The fill 1382 was cut by a small pit (1339) which was filled with silty sand (1340) and by posthole 1349. In the extreme southeast of the trench, well 1271, first cut during stratigraphic phase XVIII, was still in use and appears to have been fenced by at least six posts (1373, 1375, 1377, 1379, 1386 and 1389). In the southwest of the trench a circular enclosure with a diameter of 2 m was created by seven postholes (1343, 1345, 1347, 1351, 1355, 1357 and 1397). In addition, it is tempting to utilize postholes in order to form possible alignments, for example, 1329, 1331, 1333, 1335 and 1337.

In contrast to the activities of stratigraphic phase XVI, the activities of XVIII are far clearer. Following the sealing of J3 by layer 1175 during stratigraphic phase XVII, a total of 34 postholes, two pits, one furnace or oven and one well were cut, forming structural phase J4 (Fig. 64). Sub-phases are indicated by the cutting of posthole fill 1296 by postholes 1275 and 1277, and by the cutting of posthole 1225 into pit fill 1216. Of these activities, a structure in the northwest corner of the trench is most complete. This structure consists of a segment of a circular or round structure with a diameter of over 3 m (Fig. 65). Its centre is indicated by four major posts (1229, 1245, 1247 and 1249), probably central supports, while its circumference is formed by fourteen postholes (1233, 1243, 1257, 1259, 1261, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1283 and 1295). Internal divisions are suggested by postholes 1237, 1239, 1241, 1255, 1263, 1279, 1281, 1285 and 1287. A furnace or oven (1235) was located in a very similar position to that of stratigraphic phase XVI (Fig. 66). Its basal fill, 1291, consisted entirely of charcoal. The 2 m diameter circular enclosure of J3 was replaced by a pit (1215) with a diameter of 1.5 m and a depth of 0.55 m. Whilst the purpose of pit 1215 is unclear, it is clear that well 1279 was re-cut and walled, and presumably de-silted.

Layer 1175 was then partially sealed by layer 1174 in the northern portion of the trench during stratigraphic phase XX, and partially by 1172 in the southern portion during stratigraphic phase XXII. As 1172 and 1174 do not overlie or inter-cut, their relative stratigraphic position is unclear; however, all other parts of 1175 remained exposed until 1125 sealed all three in stratigraphic phase XXIII. Layer 1174, a 0.10–0.17 m thick sandy clay, was cut by fourteen postholes and

three pits (Fig. 67). The cutting of pit fill 1195 by postholes 1192 and 1211 suggests a small degree of sub-phasing. The postholes form an indistinct pattern of an open space, measuring 1.5 m by over 0.75 m, surrounded by postholes 1176, 1178, 1180, 1182, 1186, 1188, 1192, 1196, 1198, 1200 and 1211. Pit 1190 measured 1.25 x 1 m and was 0.27 m deep; pit 1194 had a diameter of 1.5 m and a depth of 0.045 m; and pit 1207 measured 1.10 x 1.5 m and was 0.395 m deep. Layer 1172, sand 0.06–0.29 m thick, was deposited in the southern half of the trench (Fig. 68). It is thought to represent either a fluvial deposit or possibly a man-made path of sand.

Structural analogies between Brahmagiri and ASW2 might be expected, as both represent Iron Age settlements in the latter half of the first millennium BC. However, although postholes are mentioned in the Brahmagiri report, no plan or description of structural shapes is given (Wheeler 1948: 204). Indeed, there appears to have been a preoccupation with the excavation of Iron Age 'megalithic' burials, common to both Sri Lanka and the mainland, rather than the investigation of habitation sites. As a result no structural analogies are available for this phase.

5.4 Structural period I

The third occupational period at ASW2 represented a watershed in terms of structural sequence. The round or circular structures of periods J and K were replaced by square or rectangular structures, although it should be noted that ASW2 offers only a small sample and we cannot make such suggestions for the entire site. A further change is reorganization of the distribution of structures and activities within the compound. The loci of activities appear to have shifted from the northern half of the trench to the southern half. Old land surface 1175 and its partial sealing layers, 1174 and 1172, were in turn sealed by layer 1125, a sandy clay, during stratigraphic phase XXIII. The humus-free nature of this layer 0.062–0.28 m thick, combined with the presence of a limited number of wattle and daub fragments within it, suggests that it probably represents the levelling of structures from J5. During stratigraphic phase XXIV a total of 23 features were cut into its surface (Fig. 69). Although the functions of most of these features that make up structural phase I1 are clear, for example rubbish pits or ovens or furnaces, their interrelationships are not. The most obvious linked features are the pits, slot and postholes making up the southern rectangular structure, partially exposed, the balance being under the southern section (Pl. VIb). Although only 5.7 square metres of the structure were exposed, the form was clear. The northern wall, measuring 3.25 m, was formed by two large post pits (1128 and 1130) with diameters of over 0.40 m at either end. The alignment was completed by the presence of four smaller postholes (1156, 1158, 1160 and 1162) with diameters of less than 0.13 m. The exposed 1.75 m long length of the eastern wall was at 90° to the northern wall and was defined by an

alignment of four small postholes (1136, 1138, 1140 and 1154) running due south from corner post pit 1128. The structure's western wall also ran at 90° to the northern wall and consisted of a 0.80 m long and 0.22 m deep slot (1122) located 0.65 m due south of post pit 1130. A clear, 0.02 m thick, dark organic line (1171) also ran for 1.5 m of this alignment, confirming the presence of organic walling material. On the eastern edge of the structure a small, 0.08 m thick deposit of clay was identified, although it may represent either a dump or an activity area. A small scatter of eroded tile fragments (1093) was located 0.60 m to the west of oven or furnace 1152 and 0.65 m to the south of pit 1165; however, it is unclear what this scatter represents. Sub-phases within the structural period are indicated by a single posthole (1150) cutting into context 1149, the fill of oven or furnace feature 1148 (Fig. 70). It might be tempting to suggest that oven or furnace 1148 had been levelled and filled following its replacement by oven or furnace 1152, but such a link cannot be supported.

The activities of stratigraphic phase XXIV were partially sealed in the southeast quadrant by layer 1124, a 0.072 m thick clay sand, during phase XXV. Although it sealed posthole 1169 and clay 1164, it is unclear whether it was deposited while I1 was still in occupation or whether it represents part of the levelling process in order to prepare the area for the features of I2. Layer 1124 and the remainder of old land surface 1125 were then both sealed by layer 1101 during stratigraphic phase XXVI. Again, as in the case of 1125, it appears that the 0.03–0.185 m thick clay deposit is the product of a major levelling in the area of the trench. In contrast to structural phase I1, the overall layout and relationship of linked features of phase I2 are very indistinct (Fig. 71). Features consist of five pits (1099, 1102, 1114, 1116 and 1142), one small posthole (1104), one shallow gully, 1.60 m long and orientated north–south, and an oven furnace (1109 and 1111). Pit 1116 may represent the eroded stump of a north–south orientated slot which had at one time linked up with slot 1107, also on the same alignment. If such a supposition were possible, it would form an eastern edge in an identical position to those of earlier and later structures (I1, I4, I6, I7 and I8). However, if the structural definition may be fragmentary as a result of erosion, I2 possesses the best preserved oven or furnace structure, allowing us to actually reconstruct its main features (Fig. 72). A circular pit (1109) with a diameter of 0.50 m had been cut to a depth of 0.23 m into old land surface 1101. A second pit (1111) measuring 0.75 m long and 0.45 m wide, oval in shape and orientated north–south, was cut into 1101 abutting 1109. The base of 1111 sloped down towards 1109, being 0.23 m deep at its northern end and only 0.12 m deep at its southern end. Pit 1109 and 1111 had then been linked by the excavation of a 0.25 m wide tunnel from the northern edge of the latter to the southern edge of the former. Carbonized sticks and twigs were found within all the lower sections of both units (1113 and 1120), including

carbonized branches stretching from 1111 into 1109 (Pl. VIIa). From the morphology of the two pits it seems likely that 1109 represents the furnace proper and 1111 the stokehole. This example, being the best preserved, allows us to assume that all the other furnace or oven features were also constructed in this manner but that, during their levelling, the bridge over the interconnecting tunnel, being the weakest point, had collapsed. The features cut during structural phase XXVII were then sealed during phase XXVIII by layer 977, a 0.02–0.143 m thick mixture of silt, sand and clay. The number of features cut into 977 during stratigraphic phase XXIX and structural phase I3 is very disappointing – just two! These two features are an oven or furnace (1096) measuring 1.25 m long, 0.50 m wide and 0.24 m deep, and an irregular-shaped, 0.50 m deep pit (1118) measuring 1.75 x 1.00 m (Fig. 73).

Pit 1118, oven or furnace 1096 and old land surface 977 were then sealed by sandy clay 961 during stratigraphic phase XXX. It was into this 0.02–0.09 m thick deposit that during the fourth structural phase, I4, and stratigraphic phase XXXI an 87-post structure was constructed covering some 40 square metres of the trench (Figs 74, 75). The building preserved in its core the same formation as that of the rectangular building in structural phase I1. The fact that this pattern was repeated, despite the presence of at least one, almost empty, levelling phase in stratigraphic phase XXVIII, suggests that the phases were quite close together in terms of chronology. Whereas I1's northern wall had been defined by a 3.25 m long alignment of six postholes and pit holes, I4's consisted of a 3.45 m alignment of seventeen postholes (917, 919, 959, 990, 998, 1000, 1002, 1006, 1008, 1010, 1022, 1024, 1026, 1028, 1030, 1058 and 1064). The levelled wattle and daub stump of this wall was numbered 915. The western wall of I1 had consisted of an alignment of one post pit and a slot; in I4 this was replaced by a 1.70 m long alignment of eight postholes (917, 931, 933, 935, 959, 1004, 1032 and 1044) within a wattle and daub wall (959). While I1's eastern wall had only been 1.75 m long, with an alignment of five postholes and pits, this length was extended to an alignment of 23 postholes (919, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 958, 967, 990, 992, 994, 996, 1012, 1056, 1058, 1060, 1083 and 1088) forming the core of wattle and daub wall 912 with a length of almost 5.00 m. A fresh north–south wattle and daub wall (963) was constructed 1.75 m to the west of wall 959. It was marked by nine postholes (927, 1040, 1042, 1044, 1046, 1048, 1050, 1052 and 1080) and measured some 4.5 m in length. The northern ends of walls 963 and 912 were joined by a 5.12 m long alignment of ten postholes (951, 953, 955, 957, 966, 1014, 1056, 1072, 1074 and 1078) cut into old surface 961, and five postholes cut into post slot 906. The presence of postholes 1034 and 1036 indicates that there is a possibility that this east–west alignment continued further to the west of slot 906 and under the western

section. Three postholes (1016, 1018 and 1054) may mark a buttress-type construction extending almost 1.00 m south of the northern wall. Another probable alignment is of four postholes (982, 984, 986 and 1062) running east from wall 912 close to the southern section. It is possible that they represent a temporary or light-weight screen.

While the structure of I4 is defined by the stumps of wattle and daub walls formed on a stake and post alignment, the structure's clay floors were also preserved (972, 973, 974, 975 and 976) (Fig. 76). Three of the floors – 972, 973 and 974 – are cut by pits. Although in the case of 1044 and 969 such pits may indicate refuse dumps, could pits 908 and 910, being less than 0.09 m deep, represent the location of a movable or perishable object? The distribution of these five clay floors suggests that the structure consisted of at least five rooms or divisions, perhaps six if we take into account the partition marked by postholes 982, 984, 986 and 1062. The presence of a further structure is indicated by clay floor 903 at the extreme northwest corner of the trench. It is interesting to note that, although we found no traces of slots or postholes in this area, 903 in combination with the tile collapse above (894) must confirm that there was a substantial structure here. Both structures were destroyed by fire, indeed it appears that the tile roof (894) over floor 903 collapsed *in situ*. Similarly the tile roof over floors 972, 974 and 975 had collapsed *in situ*, preserving the individual orientation of many of the tiles, together with carbonized elements of the timber superstructure, fired wattle and daub, and tile nails (Figs 77, 78).

The tile collapse and rubble, representing the destruction of the building by fire during stratigraphic phase XXXII, was then sealed by a general stratigraphic levelling, phase XXXIII. During this phase a 0.065–0.22 m thick clayey sand (880) was deposited, and within its matrix were numerous tile, wattle and daub fragments. Structural activity within this phase was restricted to a single posthole (900) cut in the southwest quadrant during stratigraphic phase XXXIV (Fig. 79). This phase was then sealed by a 0.02–0.17 m thick clayey sand (837) during stratigraphic phase XXXV into which were cut eleven features (Fig. 80). These features represent activities during structural phase I6, as did the laying down of foundation 834 and its various cut features. Although we have represented within this structural phase at least five stratigraphic phases (XXXVI, XXXVII, XXXVIII, XXXIX and XL), it is highly probable that they were all more or less contemporary. It is also extremely interesting to note that the form of the structure is very similar to that of the other period I structures, suggesting that rebuilding had occurred shortly after the destruction of I4 (Fig. 81). The main structure was located in the southern half of the trench and consisted of slots and postholes cut into a 0.265 m thick foundation of sandy clay (834). Phase I1's cell was replicated by a 1.35 m long north–south post slot (851) on the northern side, by a 2.00 m long post slot (883) on the western side, and by

a 2.35 m long post slot (892) on the eastern edge. A further four postholes (855, 863, 888 and 890) were also cut into 834 during stratigraphic phase XXXVIII, in addition to a pit (869) with a diameter of 0.50 m containing a complete ceramic vessel (879) (Fig. 82). The purpose of this vessel is unclear, however the fact that access to it was kept clear in the succeeding structural period, I7, suggests that it was of importance. A 0.01–0.11 m thick expanse of clay and possibly dung (831) was identified running along the eastern edge of the building, seemingly defined on its western edge by 2.75 m long slot 898 and 1.15 m long slot 886. Although possibly a floor, the origin or depositional function of this material deposited during stratigraphic phase XXXIX is uncertain; however a single posthole (872) was cut into it, and further deposits of a similar nature (850) were accumulated during stratigraphic phase XL (Fig. 83). Other compound features consist of two ovens or furnaces (857 and 861), six postholes (835, 853, 865, 867, 874 and 876), a square clay-lined pit (859) and a well (896). The latter feature with a diameter of 1.30 m was cut down through the underlying levels and into gravel 1886 below. The well also appears to have been filled with contexts 1106, 1121, 1206, 1383, 1394 and 1399 during this period, as indicated by posthole 874 cut into its final fill (897).

The structural features of I6 were then sealed by four contemporary deposits – 752, 787, 790 and 796 – into which the structural features of I7 were cut (Fig. 84). Layer 752, a 0.02–0.08 m thick clay, was laid as a foundation over 834 during stratigraphic phase XLI. Layer 790, a 0.165–0.195 m thick sandy clay, appears to have been a northern extension to this foundation or platform, being deposited during contemporary stratigraphic phase XLVII. While 752 and 790 appear to have been a conscious construction, layers 796 to their west and 787 to their east seem to be the results of levelling in order to raise the level of the areas surrounding the central platform or foundation. The structural complexes of I7 are clearly derived in form from earlier phases of I. I1's inner cell at the southern edge of the trench is repeated again with I4's additional corridor or verandah to the west, additional cell to the north and partitioned area to its east. Structural phase I7, however, also expands the pattern by extending the northern boundaries of the structure towards and under the northern section, allowing us a very clear idea of the internal divisions of part of the building. The northern edge of I1 was defined by a 1.50 m long and 0.20 m wide slot (803), its eastern edge was defined by a 1.70 m long and 0.40 m wide slot (800), and its western edge by a 2.05 m long and 0.35 m wide slot (801). The fill (802) of slot 801 contained a plastered edge (809) on its western exterior. The southern cell thus defined had three postholes (773, 763 and 785) in an apparently semicircular pattern surrounding pit 770. As the latter was only 0.125 m deep, it seems unlikely that it represents a refuse pit. More probably, like pits 908 and 910, it represents the foundation for a movable

object or structure. A further structural detail in this cell was the presence of a rounded corner foundation of tile fragments set in clay. I4's western extension was replicated by feature 807, a 1.50 m long and 0.55 m wide slot, and its eastern extension by 832, a 1.20 m long and 0.325 m wide slot. An additional slot, 842, runs the entire length of both 800 and 832 – perhaps acting as a foundation for additional timber supports? The ceramic vessel 871 sunk into 834 during structural phase I6 was still accessible in the northern cell through a hole in the floor. Whilst its northern edge is marked by slot 840, the western edge of 752 is badly eroded, preventing us from identifying any structural details.

As mentioned above, foundation 752 abuts foundation 790 to its north. The latter, deposited during stratigraphic sequence XLVII, appears to be contemporary with wall footings 810 and 749, deposited during stratigraphic phases XLIX and LI respectively. The exposed 1.25 m length of wall 810 marks the western edge of 790 and is on the same alignment as the edge of 752. Its identification as a wall foundation is confirmed by the presence of post slots and holes cut into it (813, 815, 817, 819 and 821). Foundation 790's eastern edge is marked by the exposed 0.95 m length of wall foundation 749, also cut into by post slots 823 and 825. Wall foundation 749's alignment is on the same north–south axis as that of slot 842. Much of 790 appears to have been covered by clay floor 791. Two features were identified within the northern cell or area defined by walls 810 and 749. Feature 769 is clearly a clay fireplace, and circular pit 792 is likely to be the shallow foundation for a connected activity. Whilst evidence for activities on 796 is limited to the presence of a single posthole (797), 787 is cut by eleven features. The eastern edge of slot 842 is further defined by the presence of an alignment of five postholes, slots and pits (827, 838, 844, 848 and 765). That at least one of these cuts fills 843 suggests that the two features were more or less contemporary. Although the purposes of postholes 777, 779, 781 794 and 829 are unclear, tile foundation 775 and postholes 765 and 783 are clearly forming a partition wall. This latter feature can be interpreted as a replication of the wall formed by postholes 982, 984, 986 and 1062 in structural phase I4.

The features cut into 749, 752, 790, 796 and 810 were then sealed by layer 729, and those cut into 787 were sealed by 767. The features cut into 729 and 767 represent the final phase of structural activity within structural period I (Fig. 85). Unfortunately much of this structural phase has been badly eroded, forcing us to compare its form with that of better preserved phases of period I. Layer 729, a 0.15–0.335 m thick clayey sand, appears to have been laid during stratigraphic phase LIII as a foundation in much the same way that 752 had been; accordingly, the majority of I8's features are cut into it. The building's fragmentary outline appears to be very similar to that of I7. Its western edge is partially marked by the 2.85 m long slot 737, whilst its eastern edge is marked by the 5.25 m long slot 706. The latter slot is clearly replicating I7's slot 842 but has what

might be a return in brick (902). Owing to differential erosion the only obvious postholes were found in the southwest corner. Postholes 748, 755 and 757 appear to mark the location of structural supports to accompany foundation slot 737. The only feature in the northern half of the trench is fireplace 769, which appears to have been built up in order still to be functional. Four vestiges of a badly eroded clay were found (750, 753, 754 and 771), confirming the similarity in floor area between this structure and that of I7. While the southeastern corner of 729 was cut by a large pit (751), the only surviving evidence of human activity on 767 (a layer 0.13–0.175 m thick) was in the form of two shallow postholes (759 and 761) which may even be root holes.

Unfortunately, there are no structural analogies available for this period in peninsular India and Sri Lanka, apart from the reported postholes in trenches D and H at Mantai (Prickett-Fernando 1990: 117).

5.5 Structural period H

The fourth occupational period at ASW2 represents an anomaly in comparison with other periods. The features of H1 and H2 are, for the main, shallow, linear pits or troughs with semicircular ends. They range in length between 2 m and 2.30 m, and in width between 0.30 m and 0.40 m. All are orientated east–west and are clustered in the northwest corner and the northeast corner. They were all cut into old land surfaces and filled with wood. The wood was burnt, leaving carbonized logs at the base; analysis of this carbonized material has identified a variety of hardwoods, softwoods, mangrove species and fibrous material, perhaps palm fibre (see Volume II, Chapter 12: Botanical Remains). The heat was so intense that the 0.02–0.01 m of soil immediately surrounding the features was oxidized, while the soil between 0.01 and 0.005 m from the edge was reduced. The homogeneous fill overlying the basal charcoal suggests that the pits were filled almost immediately. In view of their short exposure they have a high concentration of special finds, higher than those of multi-phase rubbish pits, wells and furnaces (Figs 86, 87). As a result there has been some difficulty in interpreting these features. It is possible that they may represent a cremation ground, because they are orientated to the auspicious east, while furnaces from preceding periods had no fixed orientation. As, however, there were no finds of human skeletal remains in their fills (see Volume II, Chapter 11: Human Remains), it is more likely that the troughs represent a craft-working locality as in the case of similar features at Ujjain (LAR 1958: 34). Old land surface 767 and structural phase 729 were then levelled and covered with old land surface 744 during stratigraphic phase LXII. Context 744 was a 0.26–0.105 m thick silty clay, into which were cut 12 features (Fig. 88). While the burning troughs 731, 736, 738, 739 and 740 all appear to be typical of the features described above, burnt pits 734 and 881 seem to be more similar to the ovens or furnaces of

structural phases J and I. It is evident that not all the trough features were cut at the same time. Trough 738 cuts trough 739, and trough 731 is cut by oven or furnace 881. The five features cut into the southern half of the trench during stratigraphic phase LXIII (702, 704, 708, 710 and 712) appear to be large postholes marking a 7 m right angle of a fence or shelter. Old land surface 744 was then covered with 670, a 0.304–0.102 m thick sandy clay, during stratigraphic phase LXIV. The eight features of 744 make up structural phase H2 (Fig. 89). Features 732, 733 and 735 all conform to the typical period H burning troughs, while postholes 691, 699 and 741 actually cut their fills. Postholes 687 and 689 may or may not be contemporary with either group of features.

5.6 Structural period G

Period G saw another shift in structural loci with buildings constructed in the northern and southeastern areas of the trench. The first phase, G1, was not well preserved, having been disturbed in later phases (Fig. 90). The structure was defined by a 0.14–0.08 m thick clay platform (663) measuring over 5 x 3 m. This eroded platform, laid during structural phase LXVI, was cut by two square postholes (676 and 680), five round postholes (665, 672, 674, 682 and 684) and a single foundation pit (695), 0.172 m deep. The fragmentary nature of the platform and the incomplete posthole alignments make it impossible to interpret or link the features.

The features of phase G1 were then levelled and covered by phase G2 with the construction of a building with clay platform (615) in the northern quadrants (Fig. 91). Much of the building was under the northern section wall, but the western edge was defined by a 2 m long rubble-filled slot (637) and posthole (654). A section of the southern edge was defined by two postholes (620 and 622), a 2.65 m long gravel foundation (656) and a further building platform (616) in the southeast quadrant. The structure's eastern edge may be indicated by gravel wall 614 which was exposed in the trench's eastern section. Protruding from the northern section were two square foundation pits, measuring almost 2 metres square, cut into the floor, one at the extreme western edge of the building (669) and the other 5 m to its east (612). They both contained fills of limestone slabs, sand and pebbles. It is probable that they represented foundations for timber roof supports and as such they provide an interesting prototype for the stone pillar foundations of structural period F. Other features included a shallow pit (636) and eight postholes (611, 626, 641, 644, 646, 647, 650 and 652). The building in the southwest quadrant, partly under the east section, had a clay platform (616) with an area of at least 10 square metres. Its western edge was defined by a 2.5 m length of gravel foundation (608), aligned north–south, some 2 m from the eastern section. The northern edge was defined by the southern extent of building platform 615 in the northern quadrants and by gravel foundation 603 at its northern extreme. A

foundation pit (596, possibly 503) for a roof support abutted the inside of the western wall, 3.5 m south of the northern edge of the structure. Platform 616 was also cut by a single posthole (618) in its southern half. In the right angle formed by these two buildings a number of features were exposed. These included posthole 624, hearth (?) 660, pits 612, 628, 667 and 638 (possibly a further roof support), and slot 662. Most of the latter features were sealed by tile dump 658 during stratigraphic phase LXXIV.

The structures on the clay platform of phase G2's northeast quadrant were then levelled to provide a foundation for a surface of gravel during stratigraphic phase LXXV. The structures of phase G3 followed very carefully the pattern and layout of those of phase G2, although the former is incomplete (Fig. 92). Clay platform 615 appears to have been replaced by a pavement of limestone slabs, of which three small patches remain (613). One such patch of 0.75 square metres consisted of eight limestone slabs and one patterned gneiss quernstone (sf 10186), apparently placed directly above a small pit (633) (Pl. VIIb). The floor's eastern edge appeared to be indicated by a 2.6 m long and 1.1 m wide gravel foundation (503) running north-south. Clay platform 616 was replaced by clay platform 492, which in turn was delineated by 3.3 m long gravel foundation 491 and by 1.32 m long, clay-filled slot 516 with its two postholes, 497 and 499, running east-west. A further east-west gravel foundation (502) suggests that the range of buildings, of which 492 was one, extended further north and was subdivided into two compartments roughly measuring 3 x 2.5 m and 3 x 3 m. A further structure was identifiable in the southwest quadrant of the trench. An area of roughly 4.5 x 3 m was delineated on the west by a 4 m long gravel foundation (505 and 506), on the north by pit 518 and gravel foundation 507, and on the east by gravel foundation 504. The exposure of four limestone slabs (509), with a total area of 1 sq. m, lying on a foundation of pebbles and brick rubble within this area suggests that they may represent the remains of a further area of paving, although it is possible it is the base for a pole or pillar. An area of 8 square metres, including the fragment of paving, was covered by a heap of broken roof tiles and brickbats (498), evidently re-usable material salvaged either from this structure or a neighbouring one.

The structures of phase G3 were then sealed by old land surface 470 during stratigraphic phase LXXXI (Fig. 93). This 0.58–0.06 m thick sandy clay deposit was in turn sealed by 605, a 0.34–0.235 m thick clay-gravel mix, during stratigraphic phase LXXXIII. Layer 605 in turn became the platform for a floor of limestone slabs (408) covering an area of over 3 metres square (Pl. VIIIa). This paving appeared to duplicate the position of 613 in phase G4. Pit 598 was cut at the southeastern corner of 605, and a filled earthenware pot (597) with a diameter of 0.40 m was sunk into the floor up to its neck. The western edge of 408 was delineated by a 2.85 m long, north-south orientated

wall (407) built of five to seven courses of brickwork. Beyond the western edge of the wall, parallel to 406, an area of stone and brickbat paving was exposed (488), running a length of 2.25 m. Phase G3's wall 491 appeared to be duplicated in G4 with a 6 m long, north-south alignment linking postholes 474, 479, 481 and 485; cross wall 516 was duplicated with the 1.5 m long east-west alignment linking postholes 481 and 483. Thus the eastern half of the trench appeared to be divided into two similar compartments, as in G3 but of less permanent construction.

The most recent phase of G5 began with the levelling and rebuilding of the compound during stratigraphic phases LXXXVI and LXXXVIII (Fig. 94). Limestone paving 408 was covered with 0.605–0.325 m of rubble, gravel and soil (419, 426 and 409) and capped with brick paving 405. The latter (405) covered an area of almost 4 m east-west by 6 m north-south. Three pots (381, 382 and 383) with diameters of over 0.70 m were partially sunk into the new paving, just above the pot of G4 (Pl. VIIIb). Stretches of western brick wall (407) were rebuilt on foundations of gravel (446); those parts of the wall not repaired slumped 0.30–0.80 m to the west because of subsidence. Wall foundations 445 and 450 suggest that this alignment continued for the entire 10 m width of the trench. Beyond the western edge of wall 446/407 an alleyway (450), 0.50 m wide and over 6 m long, paved with stone and rubble, was laid running from north to south with a gradient of 1:25 (Fig. 95). The alley's western limits were marked by a series – on wall foundations orientated north-south and east-west – of red gravel (447, 448, 449, 458 and 459), possibly indicating a further compound. The area to the south and east of these repaired structures was also levelled with 0.195–0.85 m of soil (390) during stratigraphic phase LXXXVI. On the new land surface, two 10 m long parallel walls aligned north-south (442, 444, 471, 453 and 456; 437 and 428) were constructed 1.5 m apart. Three east-west walls (339, 437 and 455) divided the range into a number of compartments roughly measuring 1.5 x 1.5 m (partially excavated), 1.5 x 1.5 m, 4 x 1.5 m and 1 x 1.5 m (partially excavated). The walls were all built around a framework of stakes (341, 434, 436, 439, 460, 462, 464, 466, 4717, 472, 477, 522, 524 and 526), smeared with a mixture of mud-mortar, red gravel and wattle and daub, and then coated with a lime-rich whitewash (412) (Pl. IXa). The building was positioned on the same alignment as the eastern ranges of phases G3 and G4 and covered with a roof of kiln-fired tiles. A single feature, 443, was identified in the area between walls 445 and 442. It was 1.05 m square, 14.5 m deep and filled with gravel, but its function is still unclear. The latest phase ended with the destruction of the compound by fire and the collapse of its walls during stratigraphic phase XCI. As the monumental pillared hall of the Anuradhapura period was erected directly on the levelled structures of structural phase G5, this, in effect, sealed the phases below, preventing contamination.

When we are looking for analogies with this sequence of structures, Arikamedu is one of the clear parallels in terms of date and shared pottery forms – Rouletted ware and Arikamedu Type 10, for example (see Volume II, Chapter 6: Unglazed Ceramics). It is, however, extremely difficult to make analogies owing to the size of ASW2's trench (100 square metres) and to the monumental, commercial nature of the Arikamedu warehouse structures (Wheeler 1946). Unfortunately there have been no discoveries of habitation localities at Arikamedu.

Phase G also sheds some light on the introduction and development of one of the most obvious features of Anuradhapura-period architecture – the use of the gneiss or granite pillar. Indeed, the sacred city is littered with thousands of such core structural elements, now freed from more perishable superstructures (Bandaranayake 1974). As illustrated below, the framework of the monumental structure of period F, its pillars, were mostly sunk to depths of almost 2 m below the floor level. They had been set on a saddlestone or spurstone which prevented the pillar from being driven further into the soil when the superstructure of timbers, tiles, and wattle and daub was added. This practice of construction has been identified by many scholars as being a later import, along with specific techniques and tools to work the locally outcropping gneiss or granite (Wijesekera 1962: 179). As noted in Chapter 2 above, we are now able to suggest that the use of pillars was not a new technology, but one which had already been developed in the late centuries BC and the early centuries AD. The levelled remains of three saddle- or spurstones were recorded in structural phases G2 and G3. Three square pits in phase G2 (669, 612 and 596) contained limestone slabs laid on a pebble and sand foundation, while a square pit in phase G3 (517) was similarly filled (Fig. 96). These pits, ranging in size between 1 and 2 metres square and between 0.20 and 0.305 metres in depth, are clearly foundation pits for wooden pillars which were later moved prior to levelling, or which rotted away. These prototypes pre-date the earliest dated Sri Lankan stone examples by a number of centuries. This confirms Bandaranayake's hypothesis that stone pillars represent 'only a late and often unnecessary replacement of an originally timber feature' (Bandaranayake 1974: 13). Perhaps this evidence also goes towards building what Bandaranayake has termed 'the concept of a Sinhalese tradition' (*ibid.*: 8) and gives further support to his statement that 'the primary source of Sinhalese architectural development was the indigenous building tradition' (*ibid.*: 11).

5.7 Structural period F

Structural period F is represented by the pillared hall, referred to above, which had comprised at least five rows of five columns of ashlar pillars, possibly more under the balks of the trench (Pl. IXb). Owing to the robbing activities of stratigraphic phase XCV, only 14

pillar supports were excavated (264, 304, 305, 306, 345, 355, 358, 362/3, 369, 370, 374, 378, 379 and 421). Each pillar was 4.6 m long, 0.25 m wide and 0.20 m thick. The portion exposed above the brickbat pavement was dressed, and in one case plastered with a lime mortar coat (306), while the portion below the floor was very roughly prepared and bulbous in shape. The building was oriented on the cardinal axis.

The sequence of building is now evident and was as follows. The outline of the structure was delineated and boundary walls were constructed. The structure's western wall (536) is preserved in the trench's western section and varies in depth between two and seven courses of brickbats, depending upon the undulating old land surface. The dubious stability in the extreme southwest corner of the trench merited a small buttress along the inside edge of the boundary wall (537). The individual pillar foundations vary in minor details, dictated by the surface below (Fig. 97). Shallow pits were cut in most cases into the underlying deposits, and a few alternate courses of brick, mud-mortar and cleaned sand were laid. Ashlar saddlestones, single slabs incised with one line running north-south and another east-west, were laid on this foundation (Fig. 98). The lines can be interpreted in a number of ways. They may represent the mason's building lines for laying out the hall's plan, using a gnomon or line to sight along the grooves. They may also represent intentional lines of weakness, so that when the roof was added the additional carrying weight on the pillars split the saddlestones into four slabs, thus wedging the pillar against further movement. Pillar 306, for example, had actually split in this way. Of course the lines may represent aspects of both (Fig. 99).

The pillar foundations lie at an average depth of 1.75 m below the level of the hall's paving (85 and 185), thus much packing soil and rubble (364) was brought in in stratigraphic phase XCII to prepare the flooring, which consisted of a double thickness of brickbats (Fig. 100). While dismantling the pillar foundations we encountered votive deposits, including 17 identifiable coins. Six major hoards were recovered: a hoard of 2300 glass beads, 21 ivory beads and two alabaster beads had been deposited on the saddlestone of pillar 370; a miniature limestone stupa and three glass bangles were incorporated in the sand packing of the saddlestone of pillar 362/3; a bronze bowl, lying against pillar 358, had been incorporated into its rubble packing (Fig. 101); an earthenware vessel containing an iron nail, a piece of molten glass, a quartz bead blank, and a green stone bead in the shape of a conch shell had been deposited on the saddlestone of pillar 304 (Fig. 102). Beads of carnelian, quartz and amethyst and chips of garnet, quartz, amethyst and sapphire were incorporated into the rubble packing of the same pillar. A similar earthenware vessel was deposited on the saddlestone of pillar 374. The pillared hall was then abandoned during stratigraphic phase XCIV and the brickbat floor became covered with thin silts and washes (74). The presence of these silts, combined with the absence of quantities of

roof tiles, suggests that the roof had already been removed, leaving the structure open to the elements. Following its abandonment it became used as a quarry for later structural phases.

The pillared hall structure excavated at ASW2 represents one of the most typical forms of the classic Anuradhapura period. It consisted of load-bearing gneiss or granite pillars, presumably supporting upper floors, walls and roofs built of wood, tile, brick and mud (Bandaranayake 1974: 15). The plan of the building appears to conform with that of two monastic residential buildings, the *kuti* and its larger version, the *pasada*, which was in Bandaranayake's words 'a rectangular, walled edifice constructed on an elevated platform, with a regular series of columns ranged throughout the entire structure' (ibid.: 251). The main space thus created was a large hall, although it could be compartmentalized through the use of permanent or temporary partition walls. As to the structure's original height, we cannot add more to Bandaranayake's statement that they were 'a multi-storied structure with at least one upper floor' (ibid.: 258). The precise function of the pillared structure is unclear but may not necessarily be monastic. When Bandaranayake reinterpreted the Citadel's Daladage, or Temple of the Tooth, as the royal palace, he suggested that it would be logical to expect that the royal palace would be constructed in a form and size similar to some of the major monastic structures (ibid.: 384). Similarly, it should be logical to expect that other pillared structures within the Citadel might not represent monastic residences, but rather secular residences modelled on more minor monastic structures. Certainly the identification of the use of wooden pillars in what is presumably a secular structure in the preceding phase at ASW2 further supports such a hypothesis. Although Bandaranayake has stated that 'Royal and monastic buildings had the exclusive prerogative of the use of permanent materials such as brick and stone' (ibid.: 16), the presence of brick structures in almost every sondage, in combination with the presence of more than ten pillared structures identified during our surface survey within the Citadel, suggests that their use must have been more widespread (Coningham 1994a).

5.8 Structural periods D and E

Structural periods D and E (stratigraphic phase XCV) are represented not by buildings but rather by a series of intrusive features – robber pits – cut from above. This series of pits (274, 275, 276, 277, 282, 279, 302, 312, 313, 314, 315, 319, 321, 328, 333, 357 and 370), ranging in volume from a minimum of 1 cubic metre to a maximum of 40 cubic metres, were cut into the structures below (Fig. 103). These gradually filled with thin layers of clays and silts and in many cases were themselves cut by later pits. This suggests that the retrieval or robbery of stone and brickbats was more an intermittent phenomenon than a systematic stripping. In addition to the robber pits we also

identified and excavated the contents of 535, a well or soakage pit (Fig. 104). As only the bottom 2.17 m of this feature were identifiable in the base of robber cut 313, it is impossible to reconstruct its original stratigraphic position. The cuts are interpreted as robber pits rather than a specialist form of rubbish pit, although they evidently came to function as the latter. The evidence for such an interpretation lies mainly in their form and position. They range from having straight to slightly undercut sides, and they have a flat bottom. They are all located directly against the brick and stone foundations of the pillars (Fig. 105). The pits are cut through the brickbat pavement to a depth of 1.8 m on average, a depth just below the pillar's saddlestone or base, thus making it possible to rock or topple the 4.6 m long gneiss pillars by using their own weight to bring them down. The toppled pillar could then be hauled out of the pit and broken up or transported whole to a new building site (Fig. 106). As discussed elsewhere in greater detail (Coningham 1994b), a similar practice was used by our own workmen while dismantling the surviving pillars so that we could continue to excavate deeper. The clay and silt fillings of the robber pits were excavated, thus exposing the stone pillar and brick surround. The brick, sand and mud-mortar was then removed until the weight of the stone pillar could be used to topple it over. The pillared hall's platform was some 4 m below the present land surface, so we placed two coconut tree-trunks at an angle of 45° on the side of the section wall. The square pillars were then hauled up using ropes of coir. It took 14 men an average of 15 minutes, including preparation, to haul a complete pillar (4.6 m long, 0.25 m wide and 0.2 m thick) out of the trench. It is obvious from this experiment that the cost, in terms of labour efficiency, of digging a pit in an abandoned structure and removing ashlar material would have been far smaller than that involved in quarrying, dressing and transporting ashlar from quarries. It is clear from the presence of robber pits in every sondage excavated within the Citadel that the robbing of material was of an epidemic nature. The presence of robbed material in two major late constructions within the site, the Vijayabahu palace and the phase 6 rampart (see Chapter 4 above), suggests that their construction may have been the prime cause of the widespread destruction of older buildings within the Citadel.

5.9 Structural period C

The stratigraphic position of structural period C in the sequence at ASW2 remains rather an archaeological enigma. All that remains of this second monumental structural period within the trench is a 6 m length of lime-mortared wall (263) lying within fill 42 of robber pit 275. Owing to its excellent preservation as a result of having fallen *en masse* into robber cut 275, the following notes may be made about its construction (Fig. 107).

An alignment of six ashlar blocks, each roughly measuring 1 x 0.25 x 0.25 m, was laid. It is presumed

that they were laid in slots, either cut into the old land surface or prepared in brickwork, as only the top 0.20 m of the block was dressed. Lime mortar was then applied to the tops of the blocks, and courses of brick, uniformly 0.25 x 0.15 x 0.5 m, were laid above. The collapsed wall still survived to a height of 21 courses (1.3 m) at the bottom of pit 275 (Fig. 108). Little can be hypothesized as to the size or layout of this structure as no *in situ* remains were recovered. While the wall may have even been moved some distance prior to its dumping, it is worth noting that the Gedige and Building A, situated to the east of trench ASW2, were also constructed of brick with lime mortar.

5.10 Structural period B

The major robber-pitting stratigraphic phase XCV thus concluded, the area of the trench was again re-occupied as a residential quarter. The best preserved structure from the succeeding structural period was in its first phase, when part of the old land surface formed by the top fills of stratigraphic phase XCV was sealed by low building platforms (Fig. 109). During stratigraphic phase XCIV a 0.05–0.125 m thick sandy clay platform (25) was constructed, covering an area 6 m long and 4.5 m wide (Fig. 110). A further sandy clay platform (82), perhaps an annex structure, measuring 3 m long and 2 m wide, was attached to the southern flank of platform 25 during stratigraphic phase XCVIX. The central building was delineated on its west by a wall slot (236) measuring 2.25 m long, 0.40 m wide and 0.20 m deep, five postholes (116, 144, 145, 167 and 231), and pillars 305 and 374. Its eastern side was defined by a similar slot (213) measuring 1.85 m long, 0.425 m wide and 0.10 m deep, postholes 148 and 235, and pillar 304. The southern edge was marked by a slot (242) 0.95 m long, 0.125 m wide and 0.29 m deep, five postholes (144, 235, 236, 239 and 240), and pillar 305. An area of brickbat fragments (48 and 57) in the structure's southeastern corner may indicate the position of a doorway. The northern edge was marked by slot 234, measuring 3 m long, 0.275 m wide and 0.07 m deep, posthole 116 and pillar 374. The latter slot was very well preserved with wall foundations *in situ* (55), comprising a 3 m length of two rough courses of re-used brickbats. The structure's roof and walls were supported on posts and probably on the tops of the two surviving standing pillars from Phase F (304 and 305), giving a possible height of 1.65 m above the floor. Although part of platform 82 is under the northern and eastern section of the trench, its eastern edge was defined by slot 236 and posthole 231, whilst its southern edge was defined by slot 238. Three postholes (231, 232 and 233), presumably part of the roof and wall supports, were also identifiable and were excavated. Platform 82 contained a 0.02–0.75 m thick ash deposit (51) which, combined with finds of fragments of portable fireplaces and burnt brick, suggests the location of a domestic fireplace. Other features consist of postholes and pits cut into the silted robber pits during stratigraphic phase XCVI. Postholes

119, 237, 241 and 244 may represent a rack or screen feature close to platform 25, while postholes 68, 102, 106, 110 and 120 may indicate a fence. Although pit 114, cut to a depth of 0.17 m, appears to have been a rubbish pit, the function of pit 243, cut to a depth of 1.24 m, is still unclear.

The succeeding phase B2 structure was badly robbed and survived only as a single wall plus habitation debris, although it appeared to replicate the earlier structure (Fig. 111). Following its robbing a series of two cardinal rectangular structures, phases B3 and B4, were built in succession. Their incomplete ground plans illustrate the constant re-use of building materials. Platforms 25 and 82 were then sealed by 24 and 27, a 0.30–0.855 m thick sandy clay old land surface, during stratigraphic phase C. Only two features of structural phase B3 survived post-occupation robbing, 143 and 29 (Fig. 112). The former is a 6 m long slot running north–south across the trench. Its 0.125 m depth is filled with brickbat fragments and the base of a gneiss pillar. As it lies on the same alignment as the other features of structural period B, it is hypothesized that it is all that remains of a building. Feature 29 appears to be a 0.25 m thick dump of rubble deposited on old land surface 24 and 27 during stratigraphic phase CI. The badly destroyed remains of structural phase B2 were then levelled and covered with 0.31–0.705 m thick old land surface 14 during stratigraphic phase CII. A central area of some 7 x 6 m was then further built up with clay platform 26. This 0.11 m thick level was used as a foundation for ashlar and brickbat walls (534) and a wall slot (101). Although damaged by intrusive pit 94, it is still possible to identify the fragmentary outline of an L-shaped structure. The building, with a maximum north–south length of 7 m and an east–west length of 5 m, comprised two (eastern and western), if not three (southern) compartments. The eastern compartment measured 3.5 x 3 m, the western 2 x 3 m, and the southern compartment was at least 3.5 m long. Although the eastern edge of the building was badly robbed, the southern edge was formed by a 2.75 m length of ashlar and brickbat walling and the northern edge by 2 m of walling and a 1 m long slot (101). The western edge was formed by a 4 m length of brickbat rubble on a north–south axis with pillars 305 and 306.

Old land surface 14 was then sealed by old land surface 9 during stratigraphic phase CVI, apparently a 0.845–0.345 m thick layer of levelled material and wattle and daub melt. The penultimate structure prior to the site's abandonment, B4, was well preserved in ground plan on this old land surface (Fig. 113). It was very similar in form to its predecessor in phase B3 and consisted of a rough ashlar and brick walled rectangle (531), measuring some 4.5 m north–south and some 5 m east–west, divided into two cells. The eastern cell was roughly 4.5 x 2.25 m and the southern cell at least 4.5 x 2.75 m. Although the structure's northern wall had been almost completely robbed out, leaving only a residue of rubble in shallow hollows, the southern wall was better preserved as a 1.5 m alignment of ashlar

slabs and one or two surviving courses of broken brickbats. The western, eastern and internal dividing walls were similarly preserved as alignments of re-used building materials (Fig. 114). These features, deposited during stratigraphic phase CXI, rested on 0.1–0.5 m thick clay platform 15, which had been deposited during structural phase CVII. A further structure may be included by the possible 3.5 m long right angle of brickbat walling (532) in the southeast corner of the trench. The 0.25 m thick collapse or wattle and daub layer 12 in this quadrant may also be connected with this structure. A further clay deposit (10) of uncertain function or origin was identified in the southwestern corner of the trench close to the location of robber pit 282, which was cut to a depth of almost 2.8 m in order to recover ashlar and brick debris from the pillared hall of structural period F.

Following the abandonment and robbing of B4, the site was levelled with sandy clay (5) during stratigraphic phase CXII and new structures were built. The structures built on this 0.445–0.065 m thick old land surface were in turn robbed, leaving a skeletal outline of occupation, although it appears to have followed very similar alignments to the earlier phases of period B (Fig. 115). Residues of ashlar walling appeared to suggest the 11 m long, right-angled corner of wall 533 running from pillar 304 to pillars 305 and 306. The course of this wall was confirmed by the identification of two small postholes (69 and 71) on its north–south axis. A further posthole (68) suggests that additional activities may have been present in the southwestern corner of the trench. The building was subsequently abandoned and most of its structural elements were robbed and re-used elsewhere. A structural hiatus then occurred with the deposition of up to 0.50 m of windblown and erosional wash deposits (4) during stratigraphic phase CXIV. An amount of root disturbance from a felled coconut tree was detected in the southeast corner of the trench and recorded as 17.

One of the most complete records of the later occupation of the Citadel is given in the edited report of Ayrton's excavations in the northeast of the Citadel. At this locality he successfully identified and excavated a series of partially destroyed Polonnaruwa-period structures (Hocart 1924). Although clearly built of reclaimed material, they are neatly oriented north–south lining the eastern edge of a street (*ibid.*: 51), suggesting the presence of some form of municipal authority. Similar structures must be presumed to cover a sizeable extent of the Citadel, though they are not normally recorded when encountered, as testified by Paranavitana's comment that he dug through 'vestiges of ephemeral mud structures' without recording them (Paranavitana 1936: 3).

5.11 Structural period A

Following the abandonment of the site, recognized as erosion deposit 4, much of the trench was subject to a

general levelling of soil, brickbats and general debris. Over 0.50 m of rubble and soil (3) was laid over the undulating old land surface during stratigraphic phase CXV, and 0.20 m was removed from the two exposed pillar tops (305 and 306) in order to provide a level building platform. It appears that ashlar blocks were re-used as foundations for outer walls on the eastern and western sides, while internal partition walls were built of poorly fired mudbrick (99). The floors and walls were then coated with cement (2) during stratigraphic phase CXVI. The structure appears to have consisted of at least four compartments measuring 4 x 4 m (complete), 4.40 x 3.32 m (incomplete), 3.25 x 1.90 m (complete), 3.35 x 1.75 m (complete) (Fig. 116). It is possible that the latter two compartments, on the eastern side of the building, formed a verandah. Other features included a single pit (79) cut 0.85 m into deposit 4 in the extreme southeastern corner of the trench during stratigraphic phase CXIV. When we questioned local residents, it transpired that a Buddhist nun had lived on the plot some 40 years previously. The structure collapsed and a 0.20 m thick deposit (1) of humus, mud brick-melt and rubbish formed during stratigraphic phase CXVIII (Fig. 117).

5.12 Conclusion

The above structural sequence represents something of an anomaly within Sri Lankan archaeology as it contains some of the only examples of structures not built out of imperishable materials. Typically, excavations have been oriented toward monumental structures built of stone, brick and tile, whilst buildings constructed out of perishable materials have been overlooked and in some cases even dug through without being recorded (Coningham 1994b: 73–76). This state of affairs, in combination with the lack of other published Sri Lankan habitation sites, makes it very difficult to assess the representative nature of ASW2's structural sequence and therefore of its periodized artefact catalogue. However, the question of locality continuity at the trench can be approached: that is, does the trench at ASW2 offer a continuous sequence? If it does not represent a continuous occupation, this affects the reliability of the structural sequence and periodized artefact catalogue.

It is argued here that cities are seldom completely rebuilt in phases, barring vast natural or man-made catastrophes. They follow an uneven mosaic pattern of rebuilding, depending on changes on the small scale, for example, new access to building materials or the death of an individual. The possibility of a general disturbance all over the city is very unlikely. The factor of structural and social continuity within the site is also less serious than first expected, as illustrated by the repetitive structural data from ASW2. Structural period K, the earliest occupation of the trench locality, consisted of three phases of round structures, each phase representing the rebuilding of the structure in the same position in the northeastern quadrant. Structural period J contained a further five rebuilding phases of round structures in the northwestern quadrant. Structural

period I consisted of eight phases of a square building located in the two southern quadrants, while structural period H, being four phases of shallow burning troughs, represents an anomaly in comparison with those of other periods. Period G saw a shift in structural loci with buildings, still cardinally oriented, constructed in the northern and southeastern areas of the trench, and consisted of five rebuildings. Structural period F, represented by the pillared hall, ends the major continuity, having been constructed of less perishable materials. Towards the end of the sequence, during structural period B, structures of a less permanent nature are constructed on the ruins of the pillared hall and follow five rebuildings before the locality was abandoned until its re-use in the early decades of the twentieth century.

The structural continuity within periods is remarkable; even after the previous building had been levelled, many successive phases are rebuilt on exactly the same ground plan. There is also evidence to suggest that the main uninterrupted sequence of 25 phases (from structural periods K to G) covering almost 600 years may have been occupied by a single group. This evidence is suggested by 'megalithic' symbols, or rather non-scriptural graffiti, recovered from trench ASW2 (see Volume II, Chapter 9: Epigraphy). We recovered 170 sherds in this category, of which 73 graffiti appeared to conform to a common or dominant symbol, a sign similar to a Brahmi *ma* enclosed by arms or a vessel (Fig. 118). Other

symbols, for example swastikas, serpents, stupas and staffs surrounded by enclosures, were inscribed on a further 97 sherds. A comparative analysis of graffiti symbols from Deraniyagala's sondages elsewhere in the Citadel failed to yield a similarly high percentage of ASW2's dominant symbol. At AMP it numbered just under 2 percent, 0 percent at AEG, 7 percent at ADB, 8 percent at ARW, 1 percent at AG and 6 percent at ABW3. Hunt argued in the 1920s that as the majority of such 'megalithic' symbols had been made after firing, they were not potters' marks (Hunt 1924: 150). Indeed, he suggested that, rather than belonging to an individual, they represented 'tribal ownership marks' (ibid.). This theory is similar to that of Yazdani, who suggested that the graffiti could represent ideographs or phonograms (Yazdani 1917: 70), later reiterated by Paranavitana (Paranavitana 1970: xxv) and Seneviratne (Seneviratne 1992: 109). If such a symbol may represent a tribal or family mark, then it may be suggested that ASW2's dominant symbol could be loosely correlated with a group living in this particular locality within the settlement – confirming a spatial and even, perhaps, a social continuity (Coningham 1994b: 66–68). It is interesting to note that similar suggestions have been made by other archaeologists over similar repetitive structural sequences (Halstead 1989: 76).

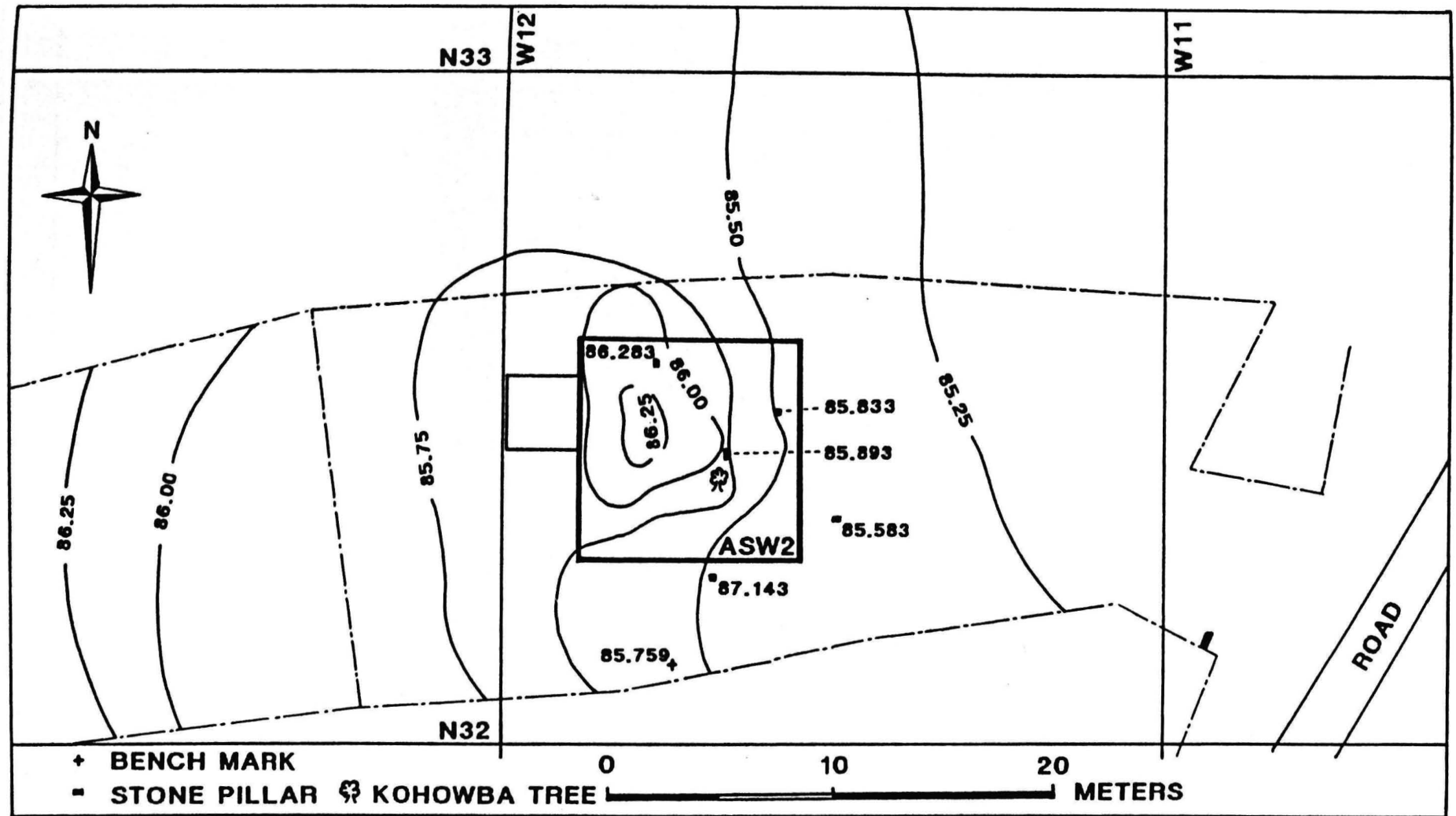


Fig. 51: Plan of ASW2's immediate environment



Fig. 52: Exposed pillar tops at ASW2

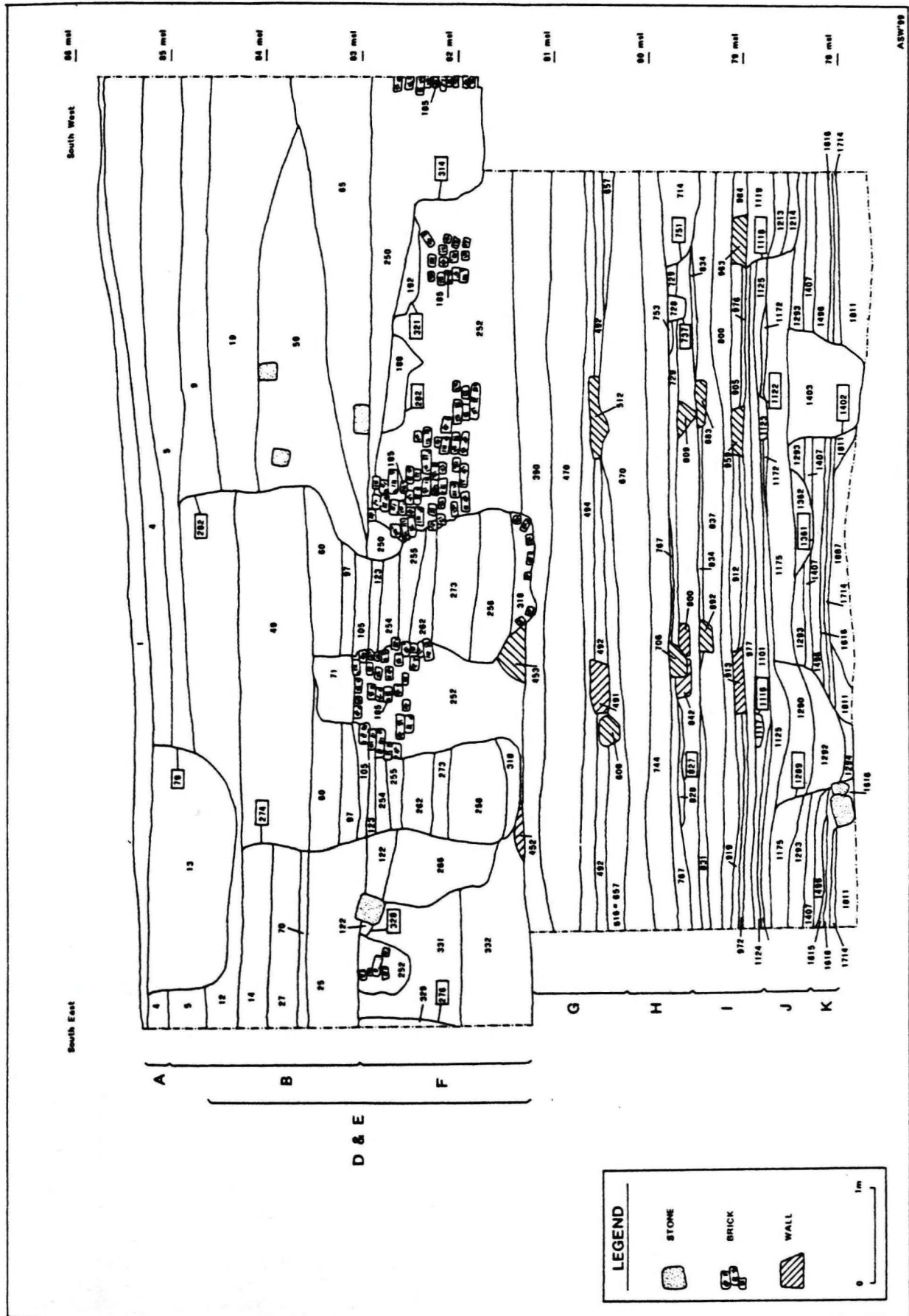


Fig. 53: Southern section of ASW2

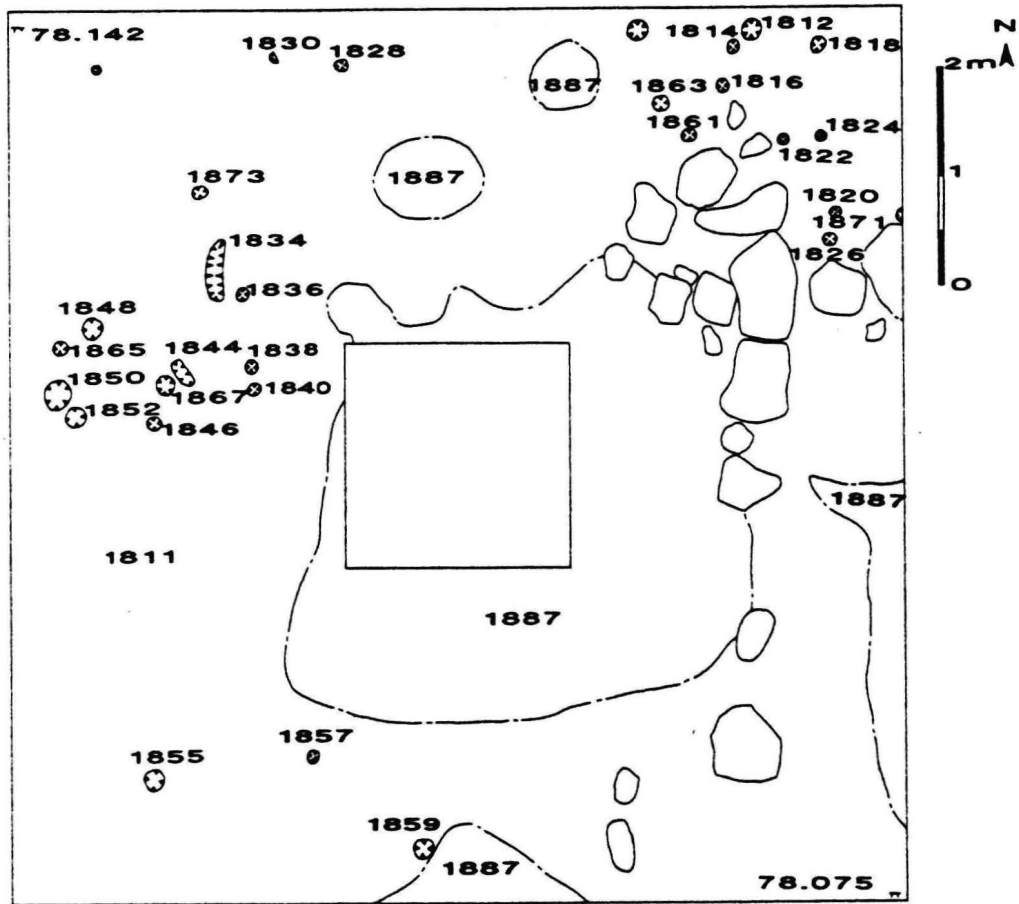


Fig. 54: Plan of structural phase K1

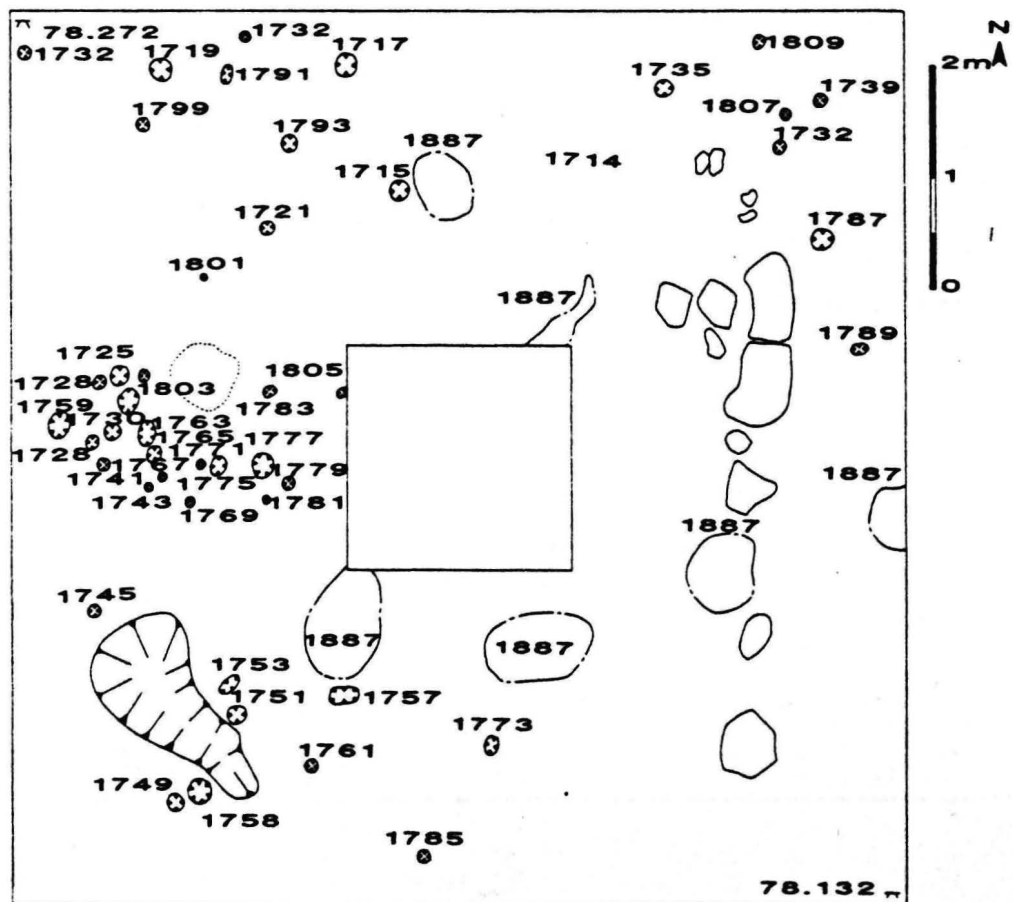


Fig. 55: Plan of structural phase K2

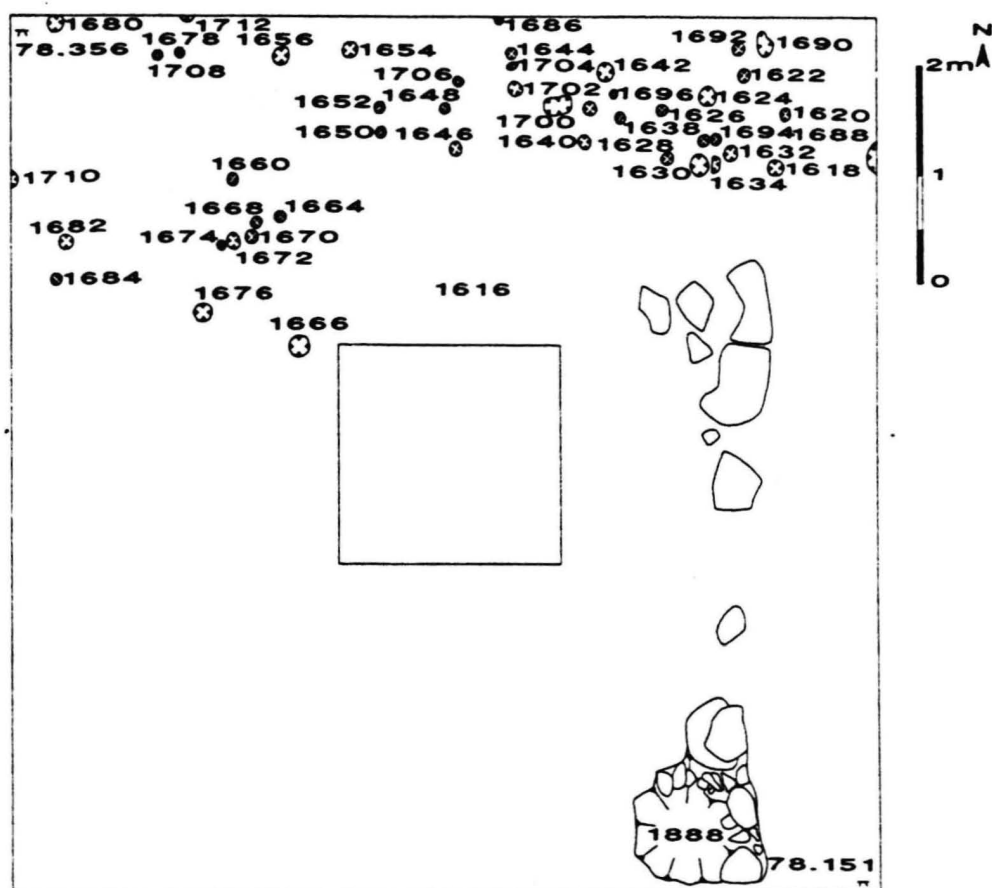


Fig. 56: Plan of structural phase K3



Fig. 57: Structural phase K3 from the northeast

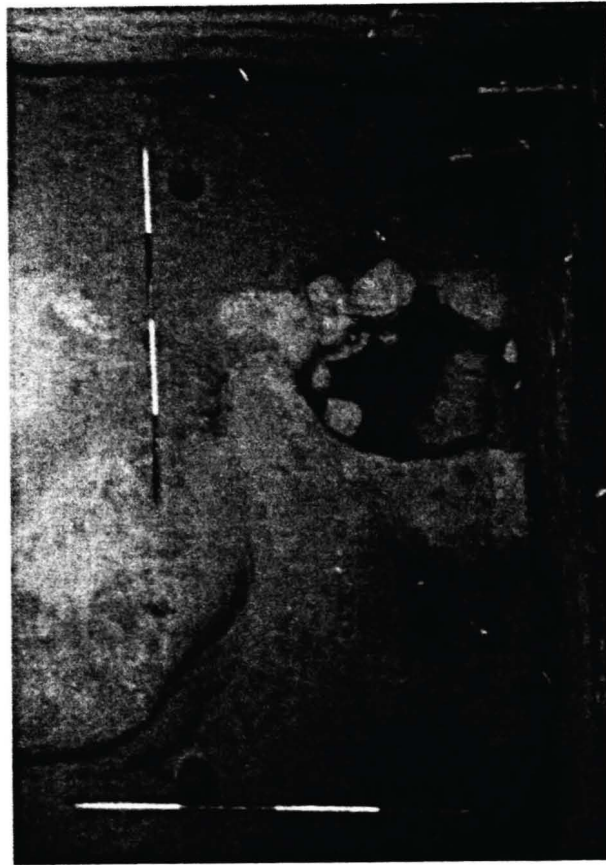


Fig. 58: Well 1279 (structural phase K3)

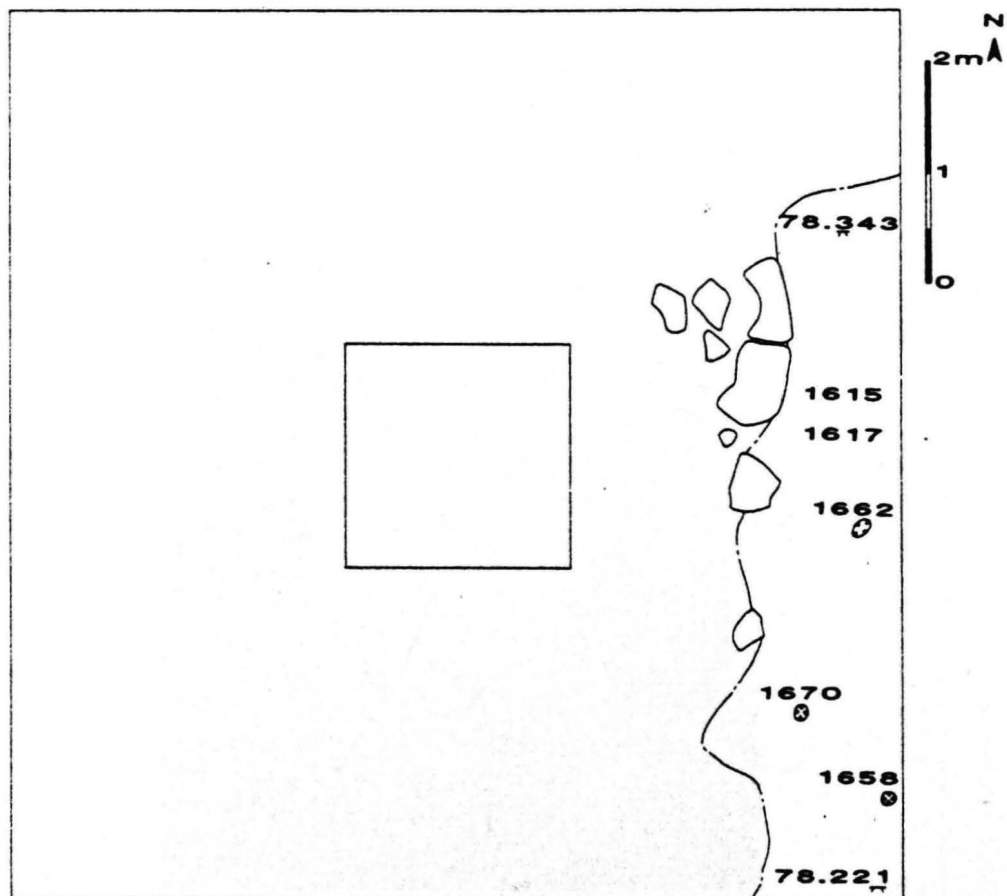


Fig. 59: Plan of stratigraphic phase XI

The Excavations at ASW2

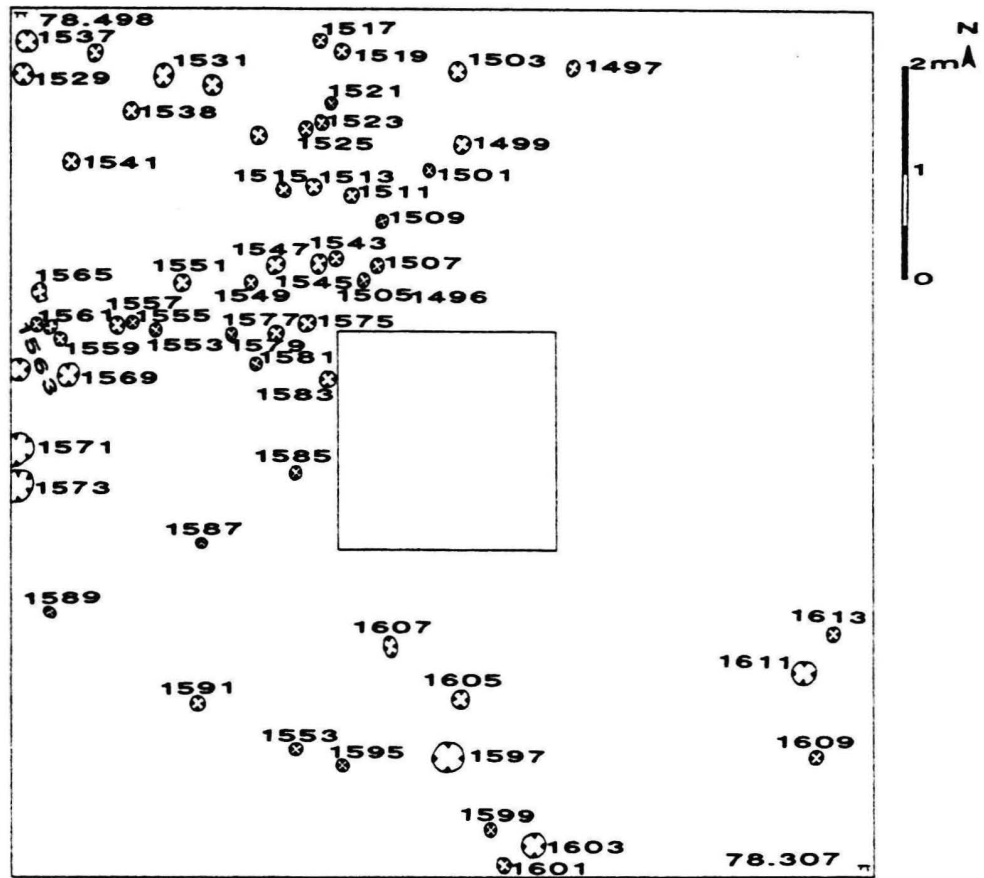


Fig. 60: Plan of structural phase J1

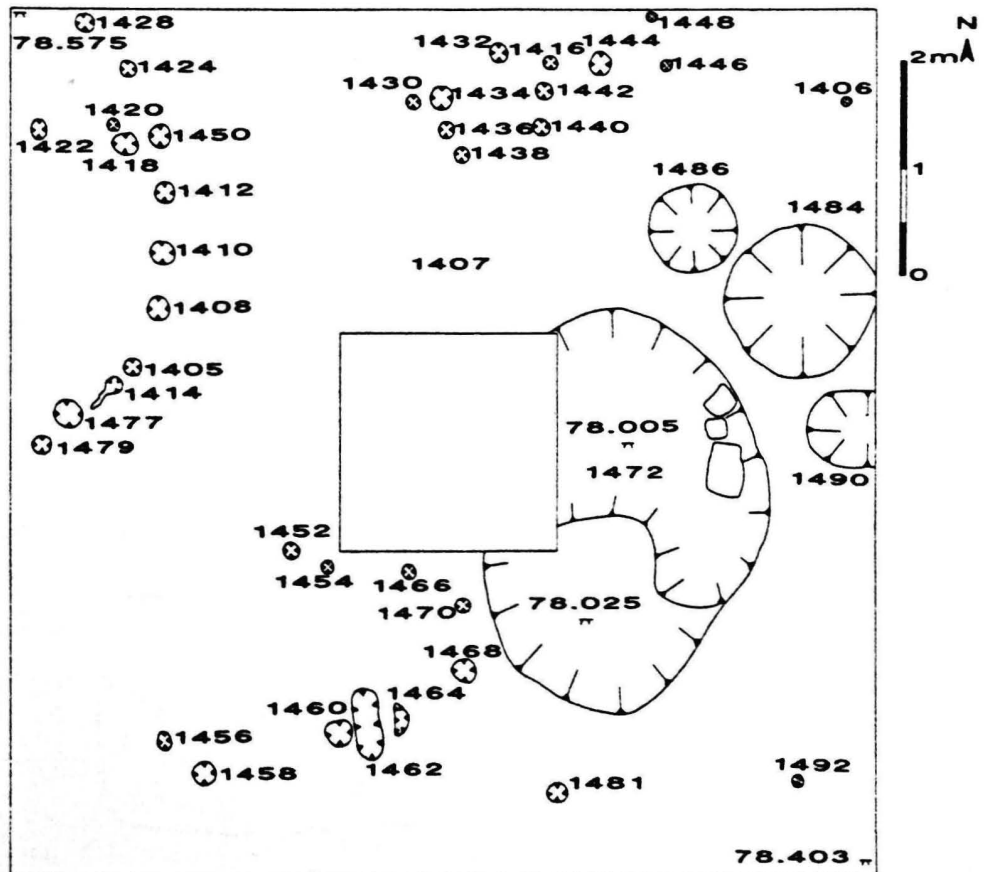


Fig. 61: Plan of structural phase J2

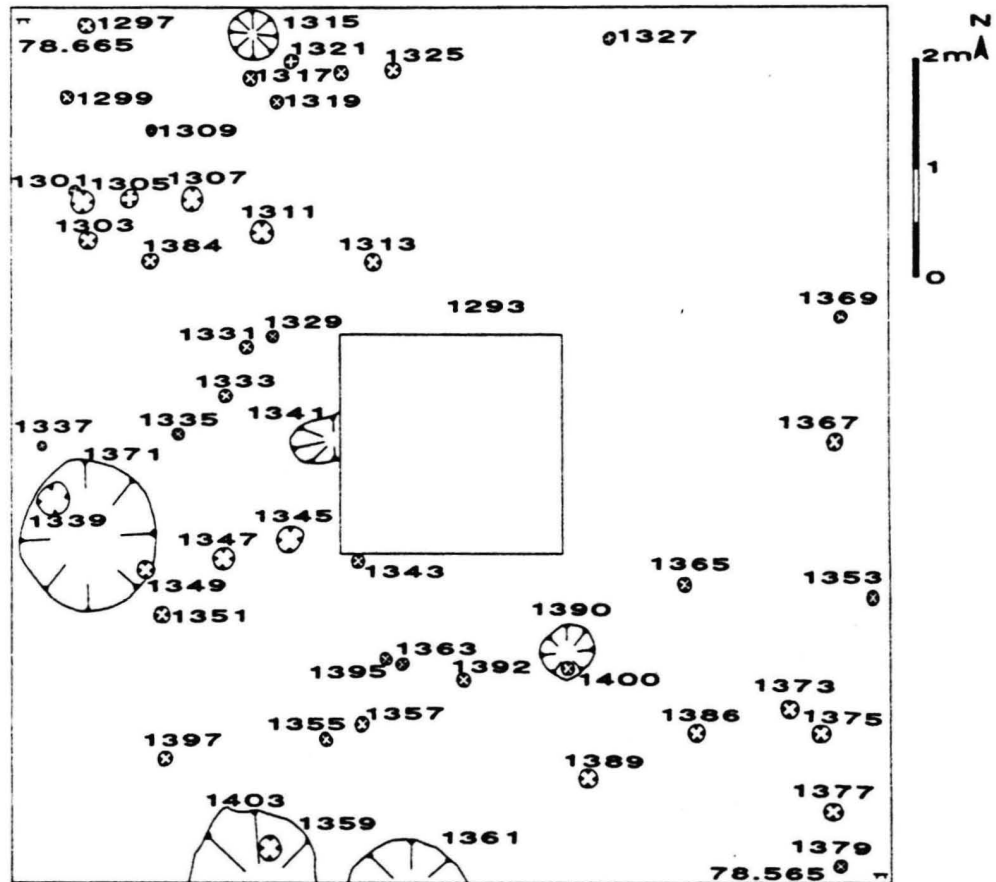


Fig. 62: Plan of structural phase J3

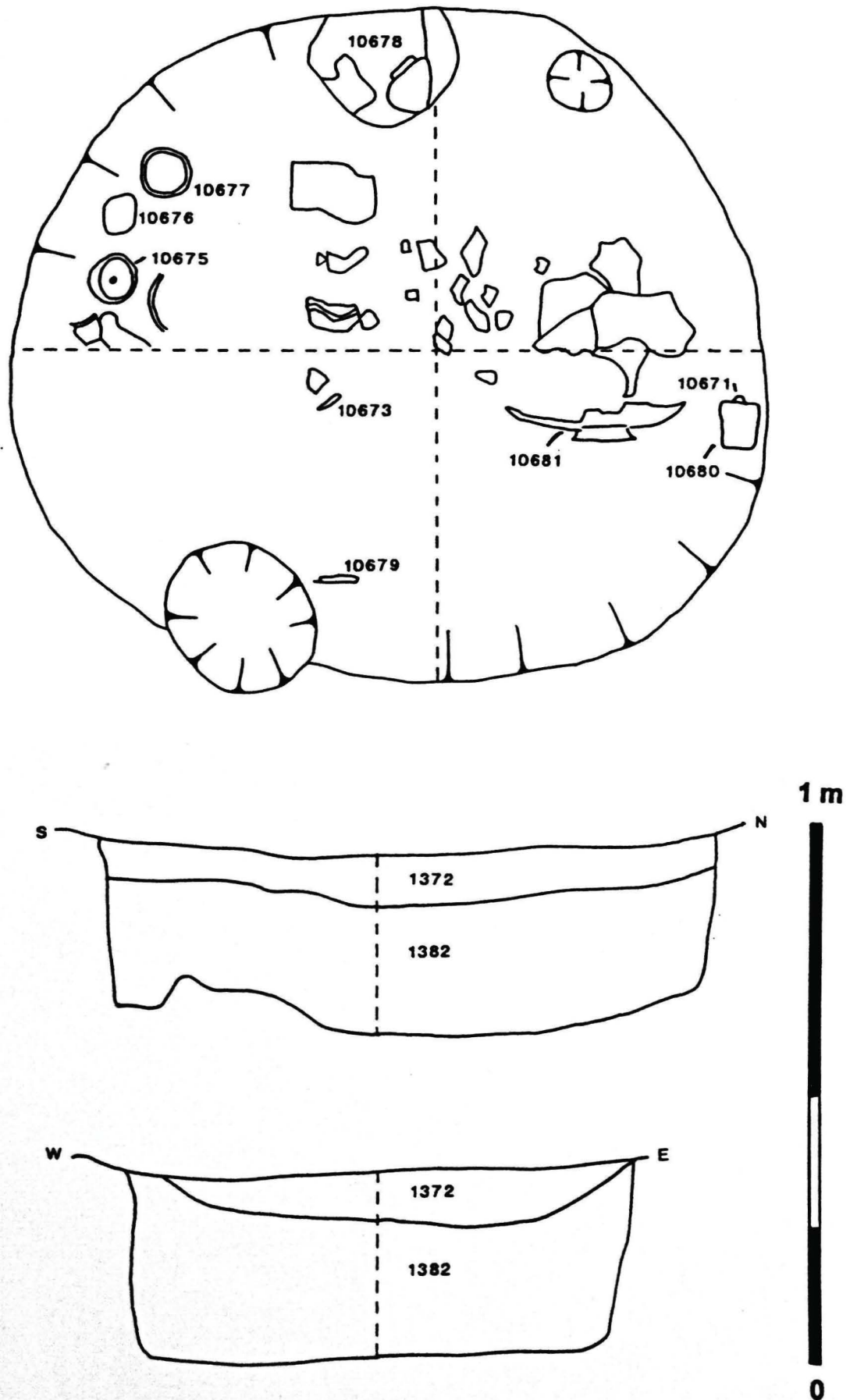


Fig. 63: Plan of pit 1371 (structural phase J3)

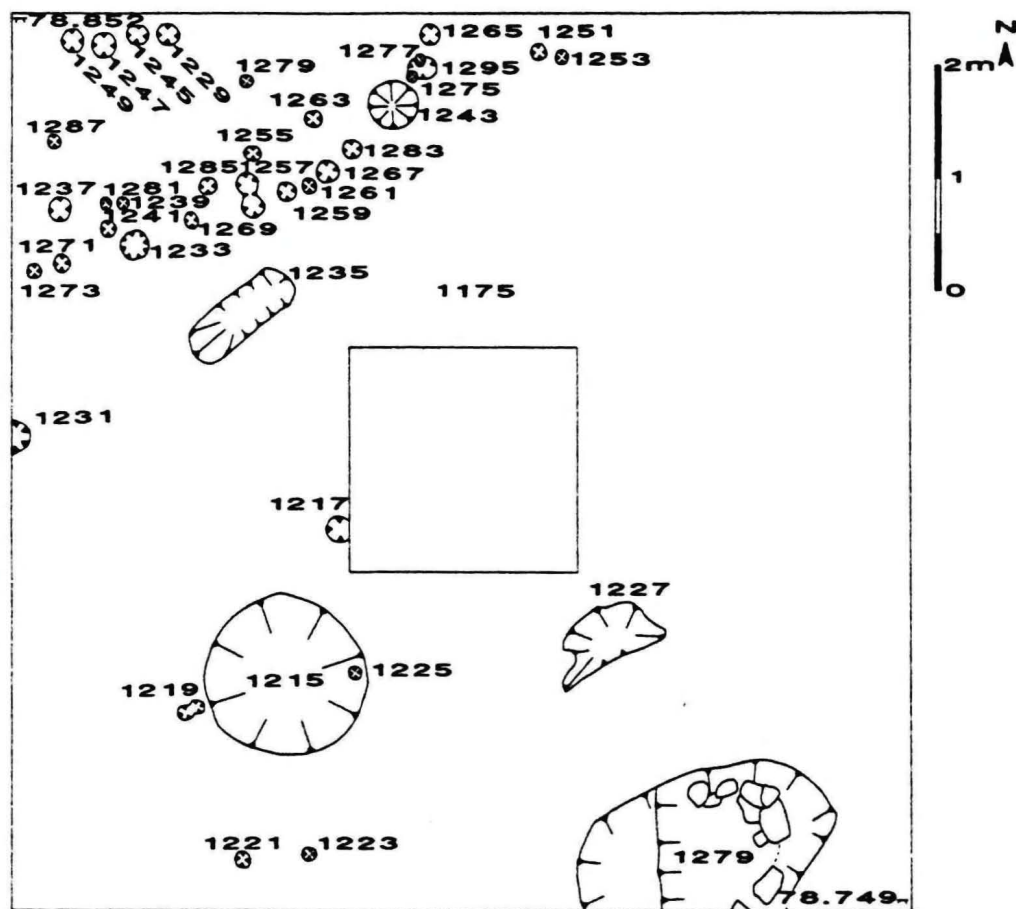


Fig. 64: Plan of structural phase J4



Fig. 65: Structural phase J4

A map of the study area showing sampling stations and depth contours. The map includes a scale bar (0 to 2m) and a north arrow. Sampling stations are marked with numbers and symbols: 1176, 1178, 1180, 1182, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1207, 1209, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300. Depth contours are shown as solid lines with values: 79.021, 1196, 1198, 1209, 1204, 78.888, 1174, 1202, 1182, 1186, 1194, 1211, 1190, 78.877, 1207. A dashed line indicates a boundary or transect. A large square box is present in the lower right area of the map.

95

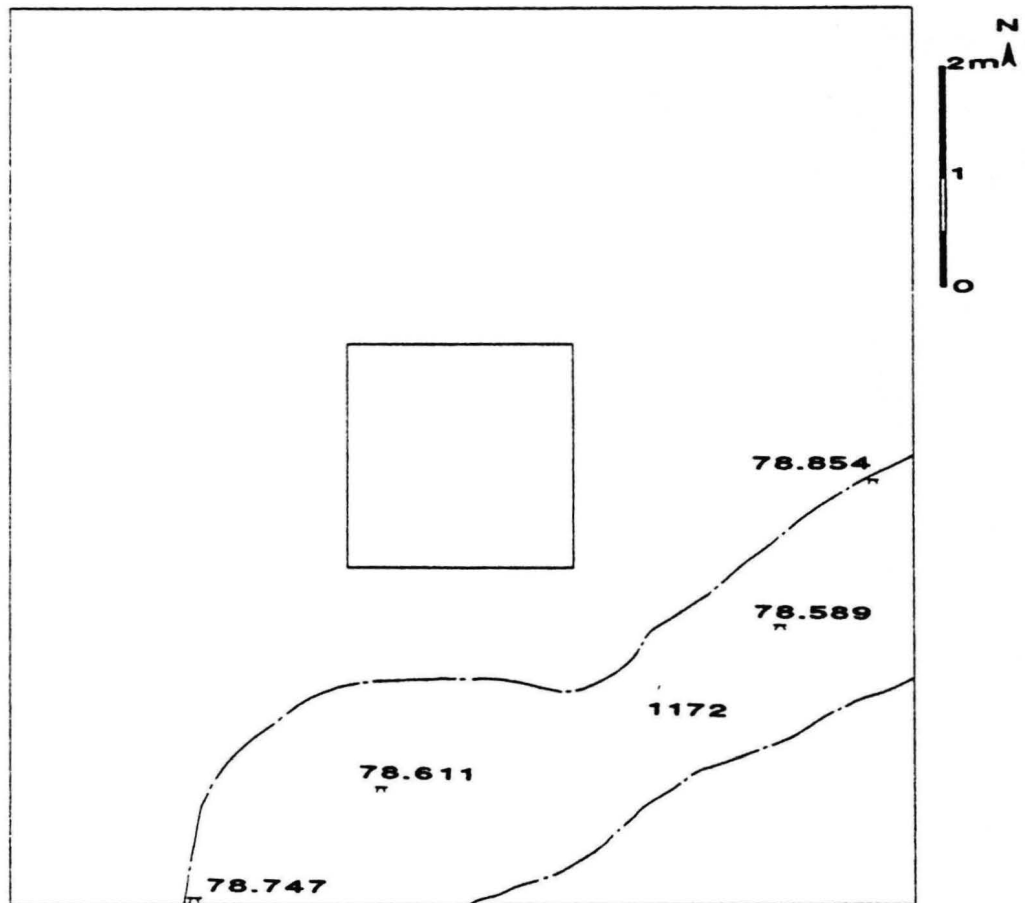


Fig. 68: Plan of stratigraphic phase XXII

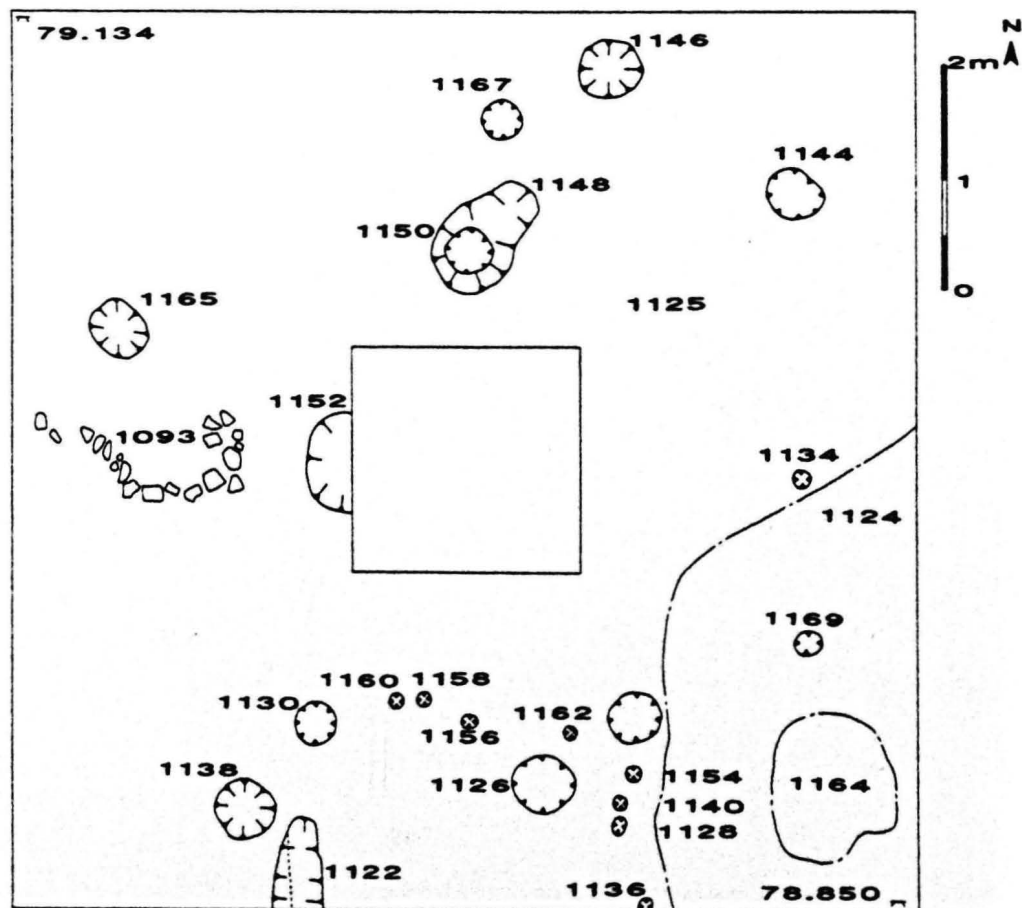


Fig. 69: Plan of structural phase II

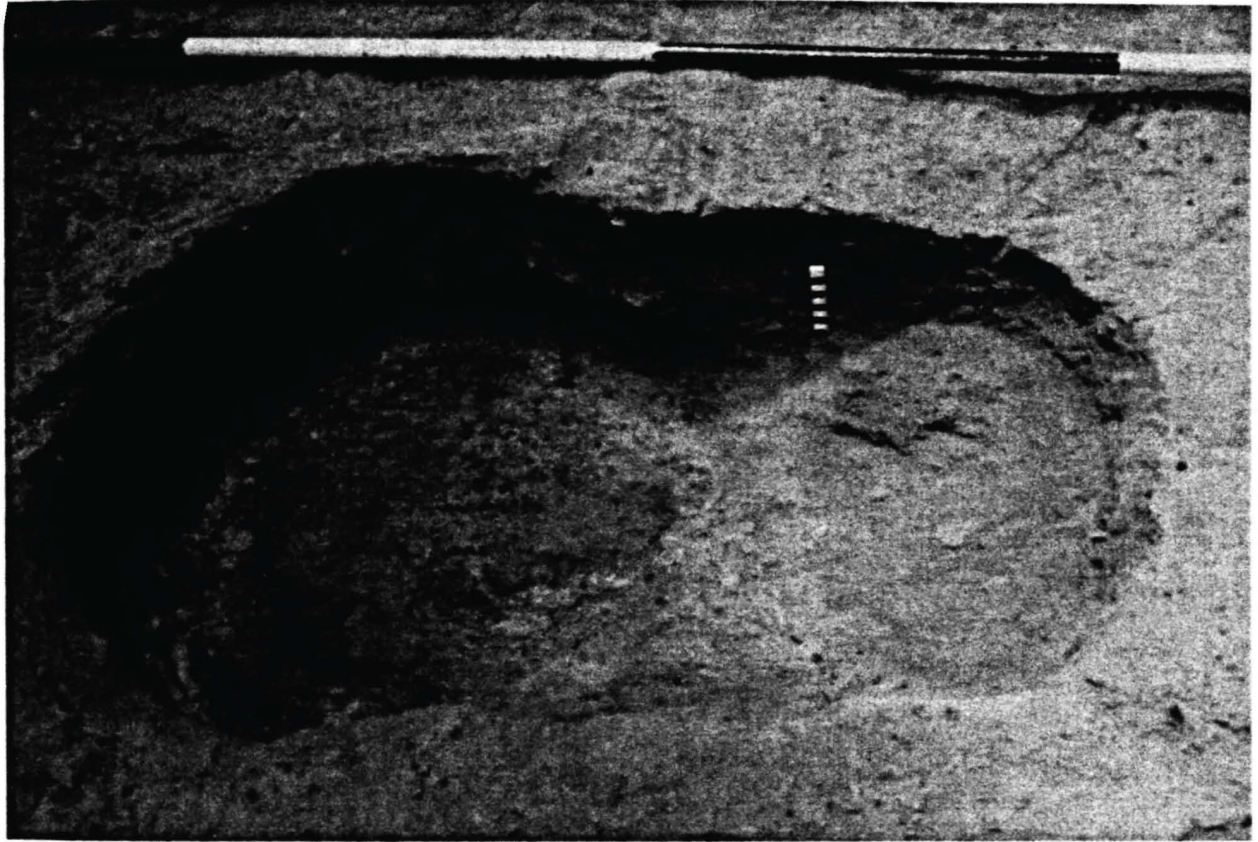


Fig. 70: Furnace or oven 1148 (structural phase II)

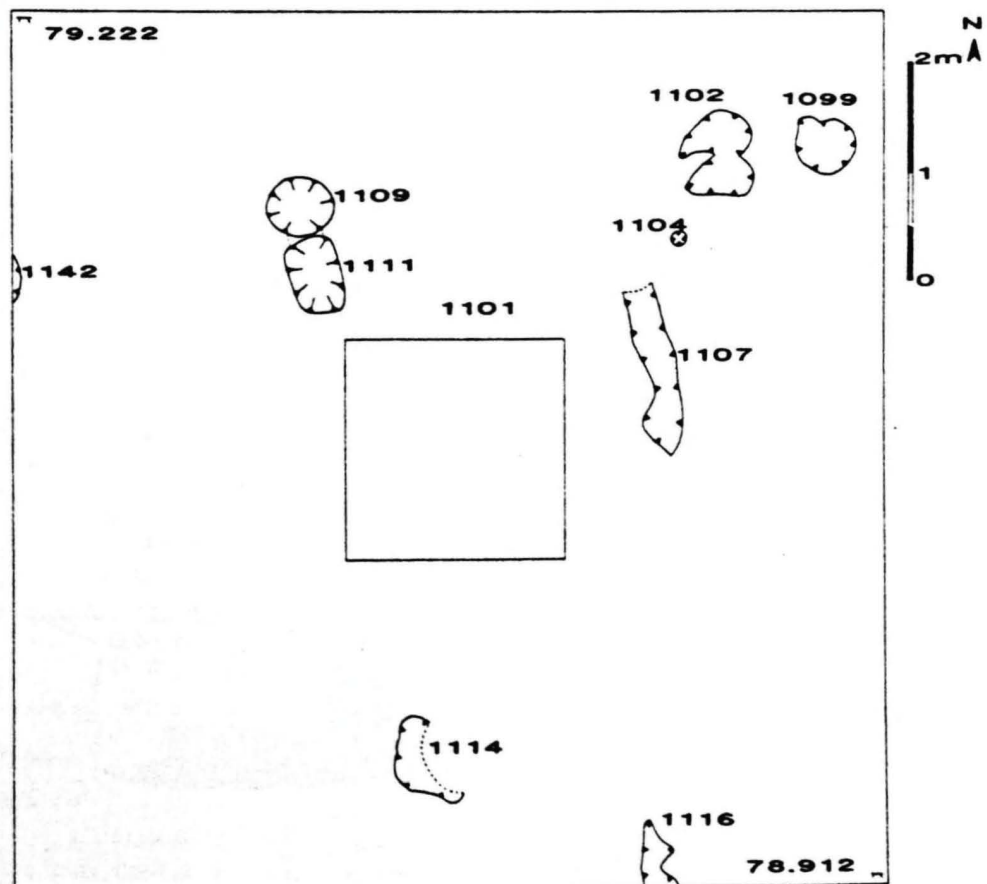


Fig. 71: Plan of structural phase I2

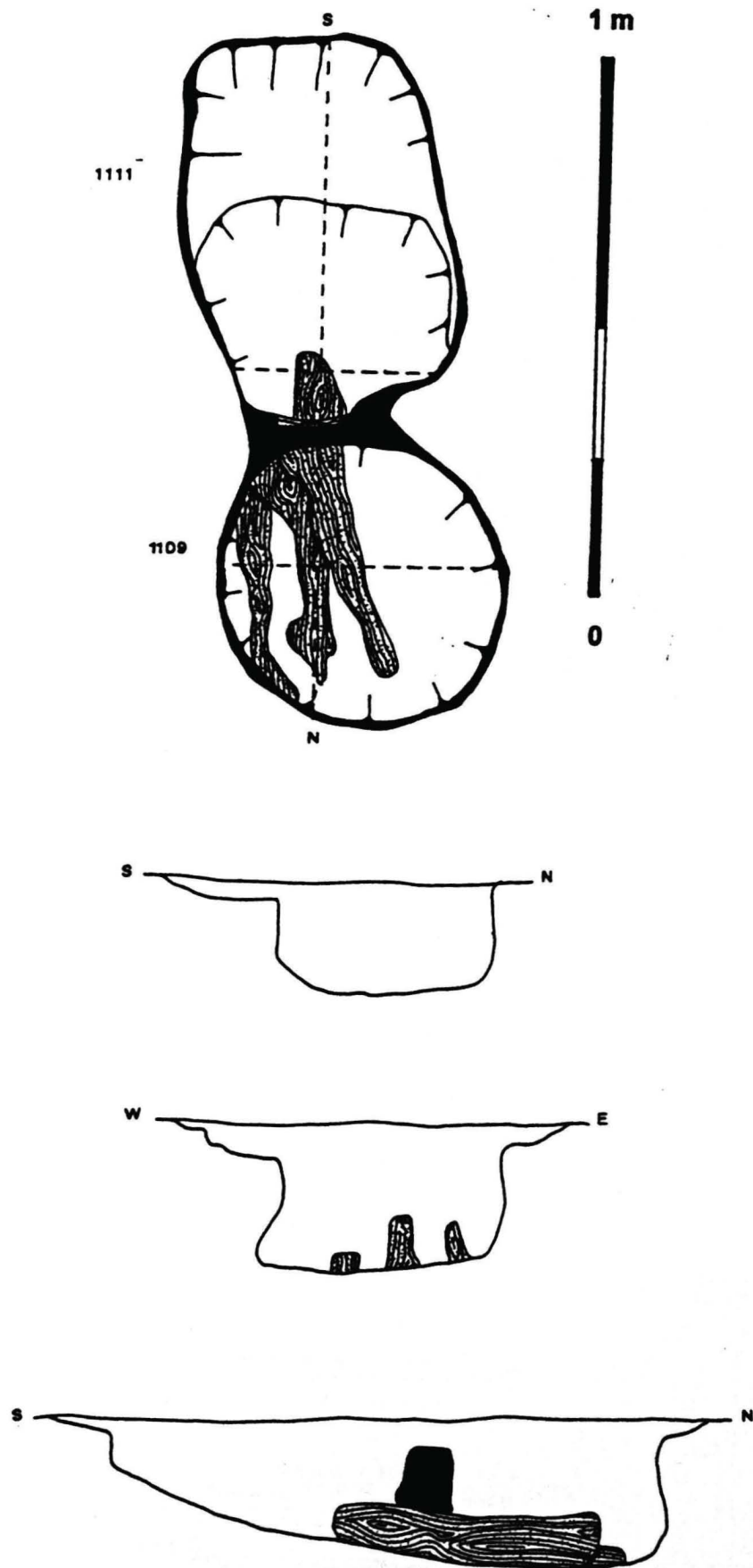


Fig. 72: Plan of furnace or oven 1109 and 1111 (structural phase I2)

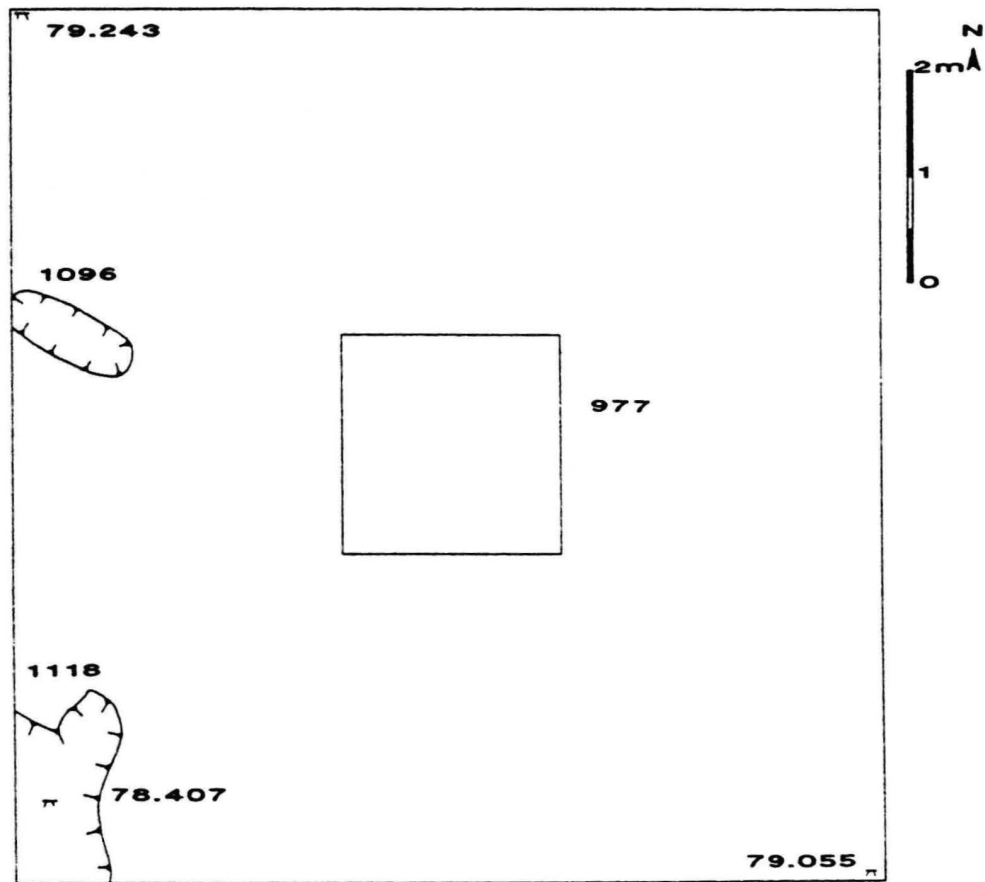


Fig. 73: Plan of structural phase I3

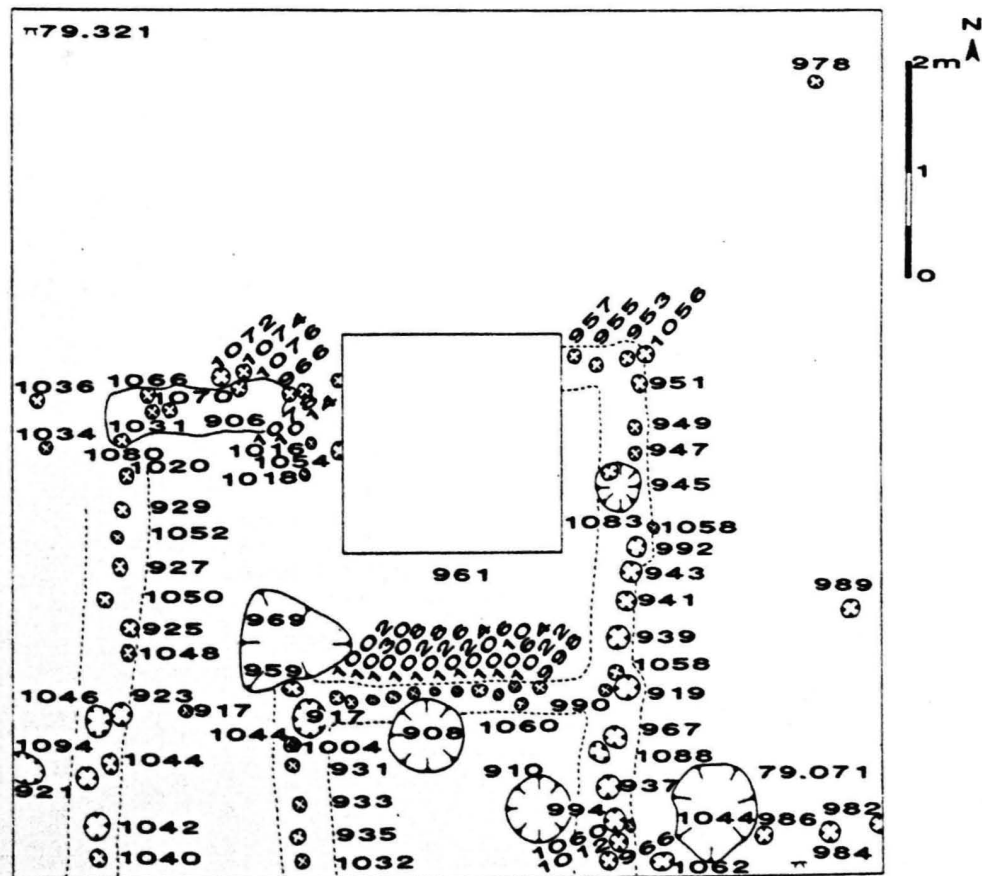


Fig. 74: Plan of structural phase I4

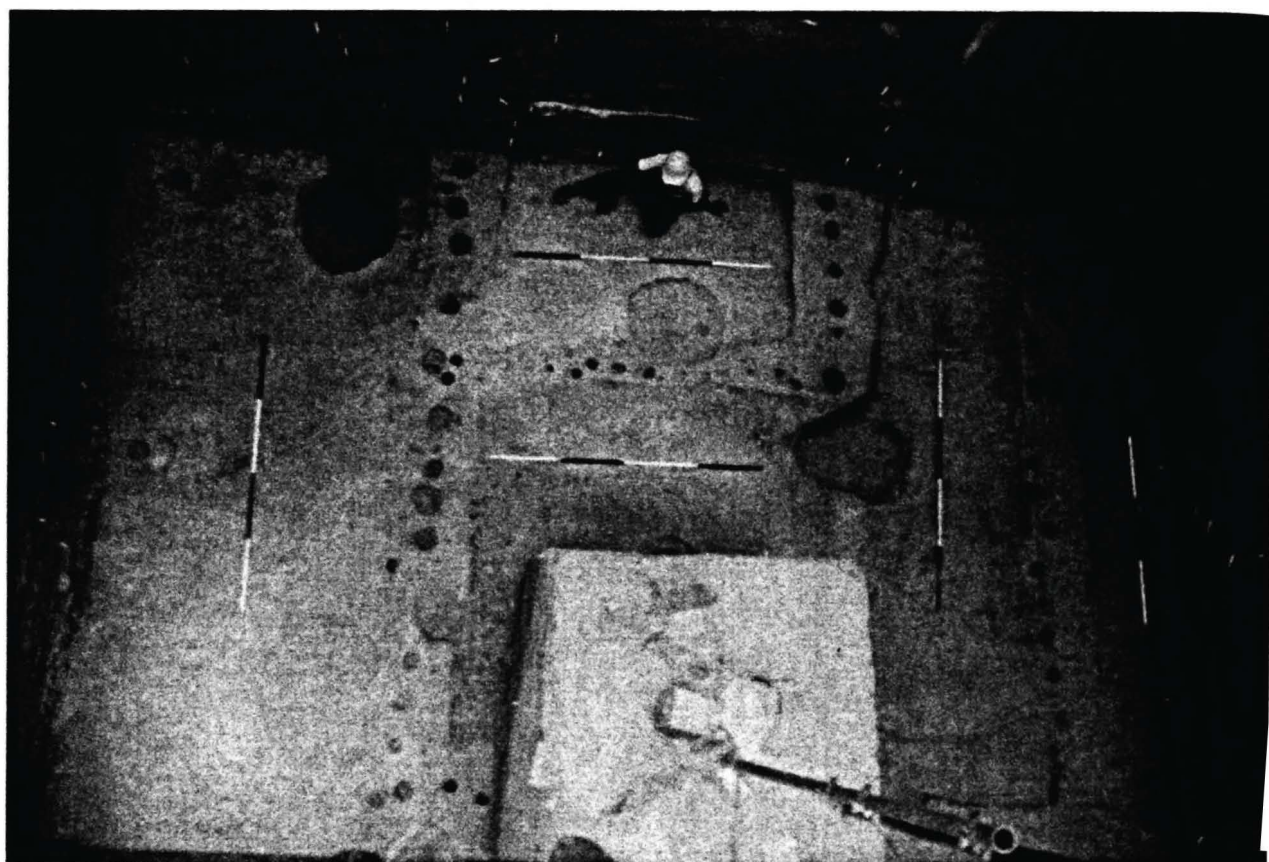


Fig. 75: Structural phase I4



Fig. 76: Plan of clay floors 972, 973, 974, 975 and 976 (structural phase I4)

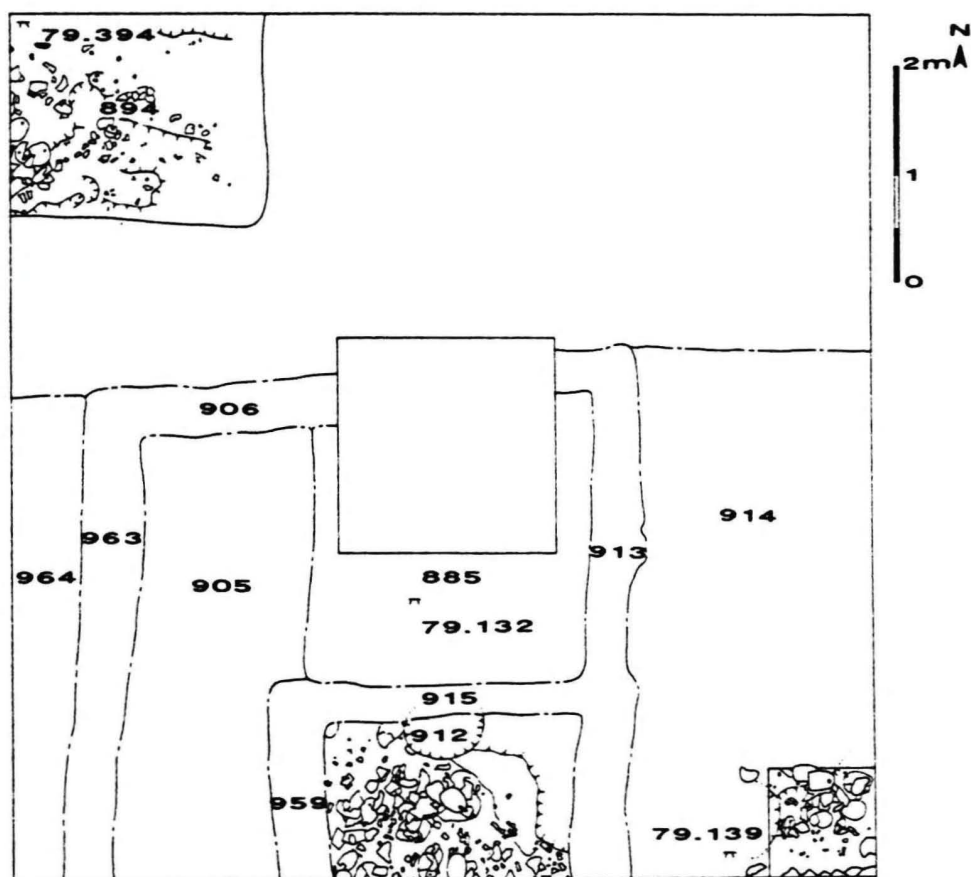


Fig. 77: Plan of tile collapse 894, 905, 912 and 914 (structural phase I4)

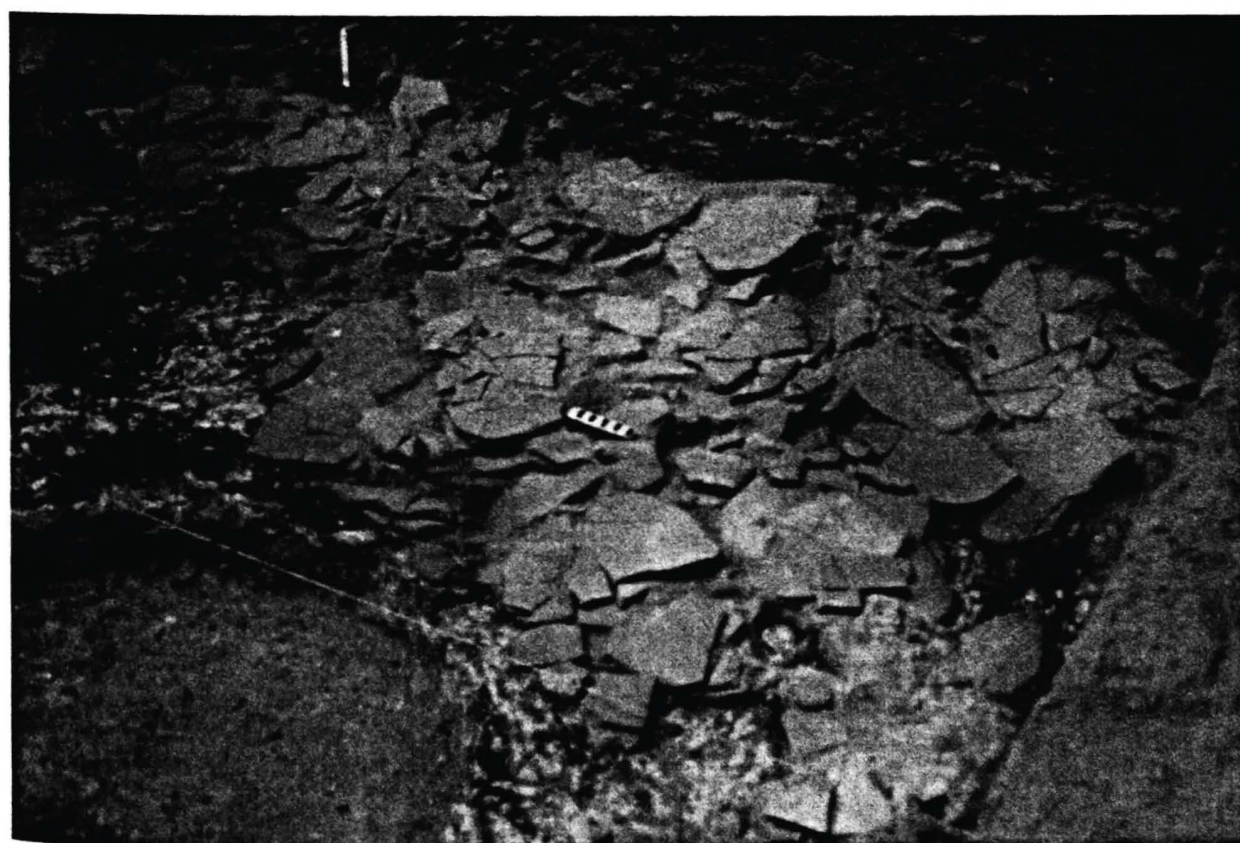


Fig. 78: Tile collapse 894, 905, 912 and 914 (structural phase I4)



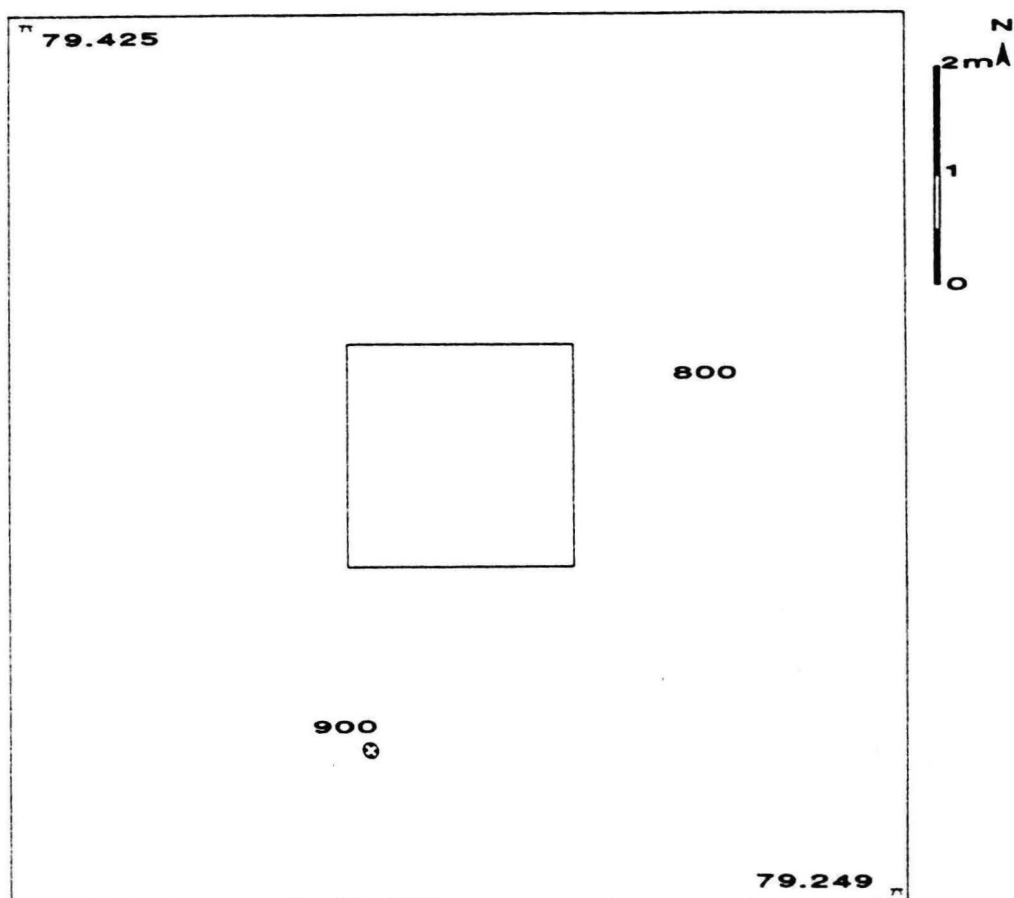


Fig. 79: Plan of structural phase I5

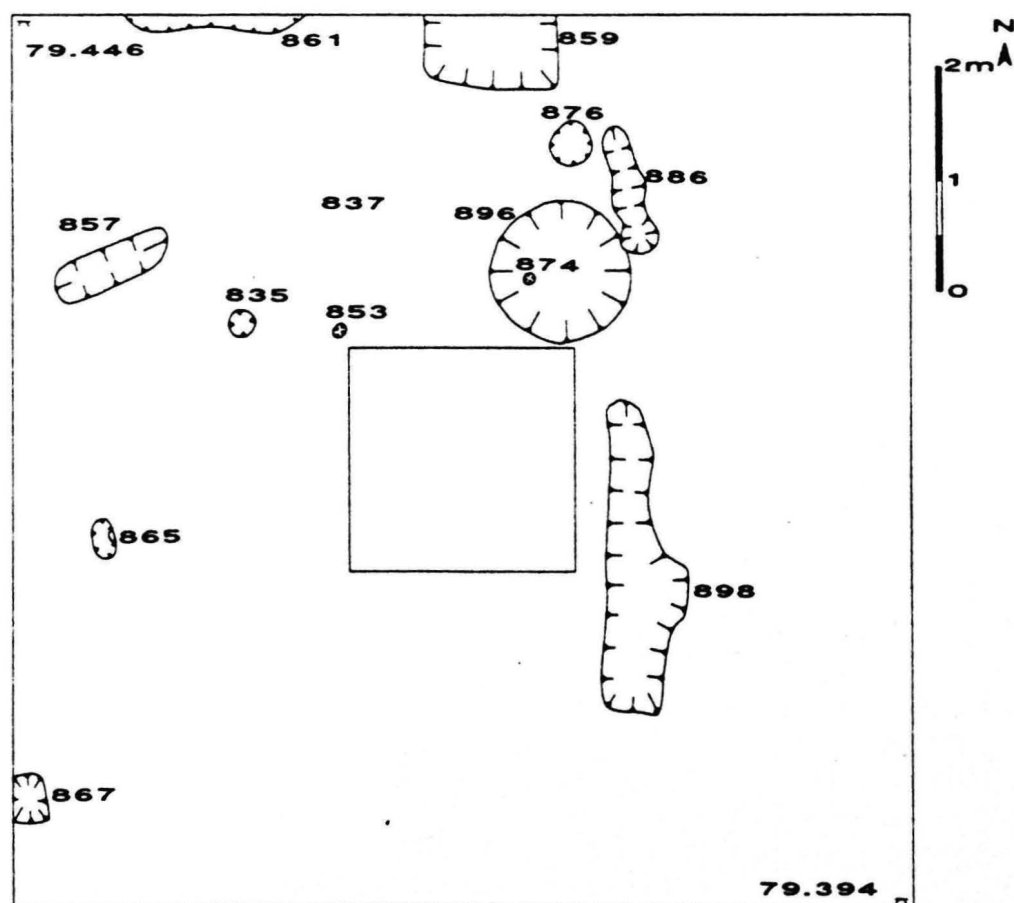


Fig. 80: Plan of structural phase I6

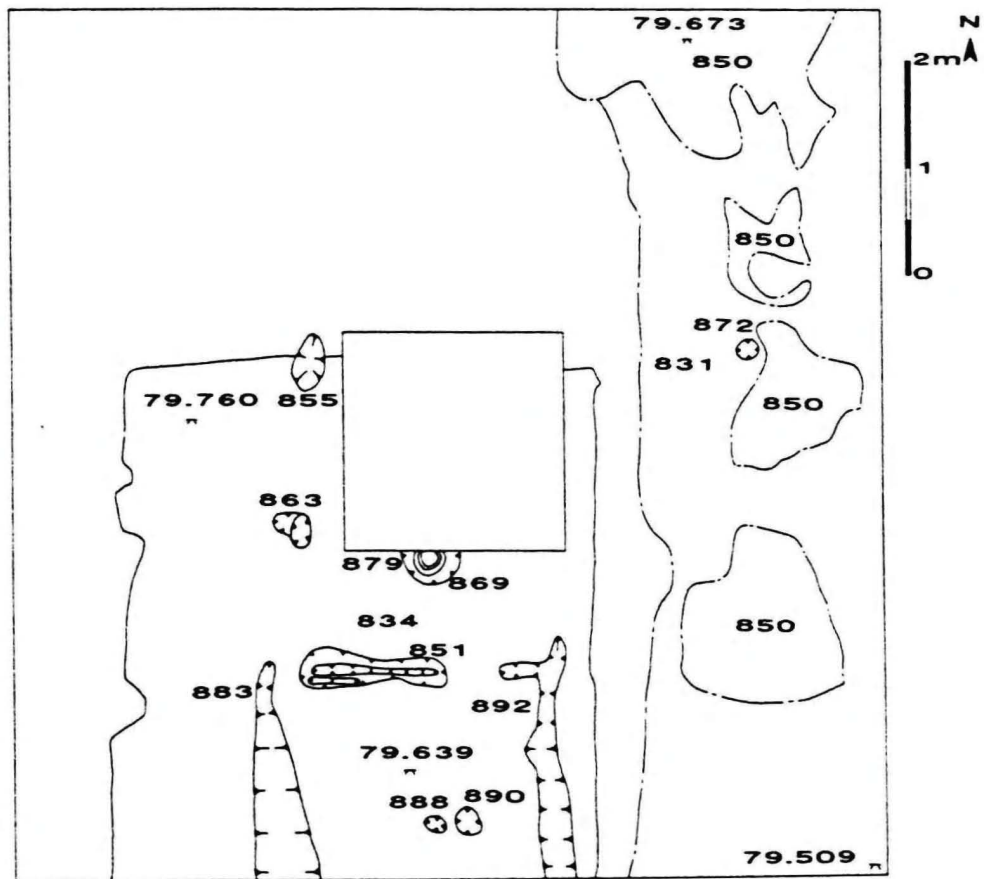


Fig. 81: Plan of structural phase I6



Fig. 82: View of vessel 879 in situ (structural phase I6)

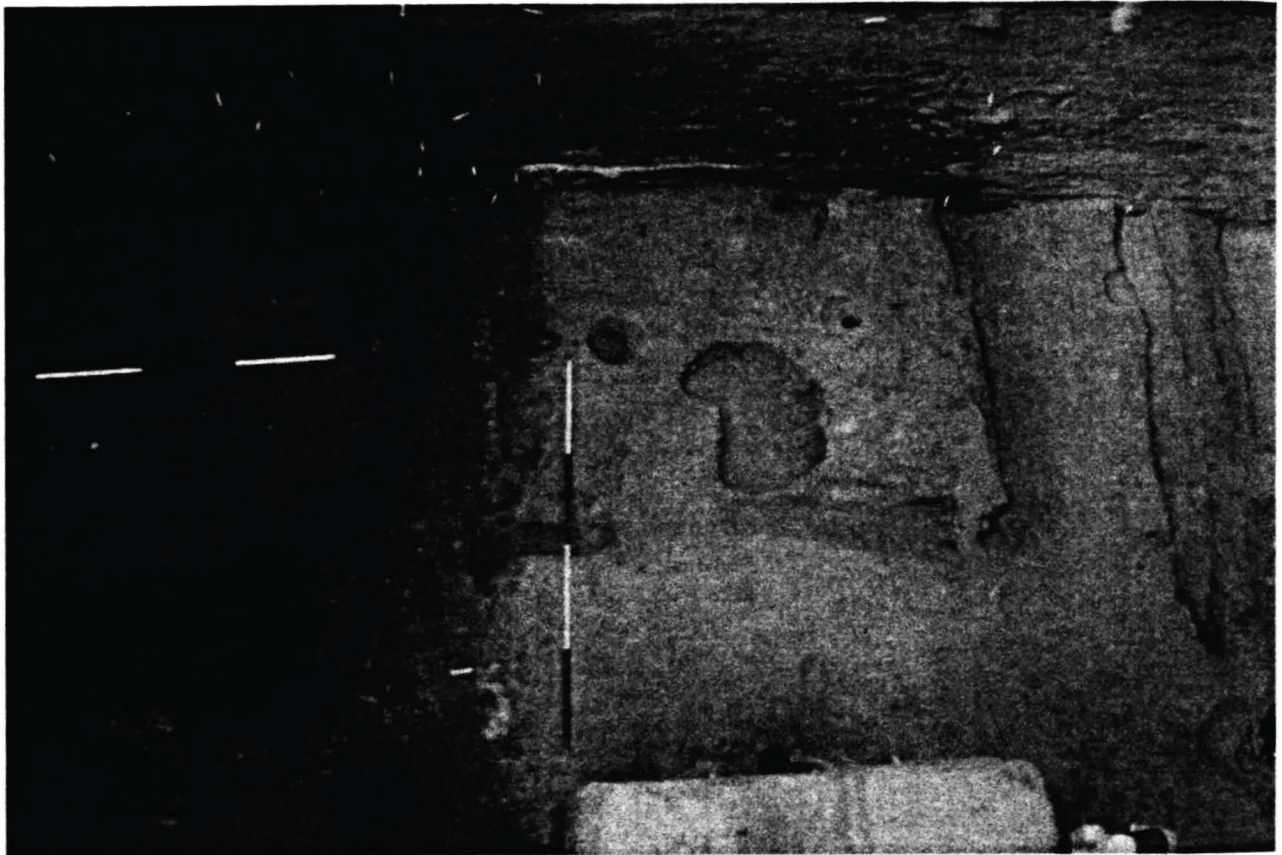


Fig. 83: Structural phase I7

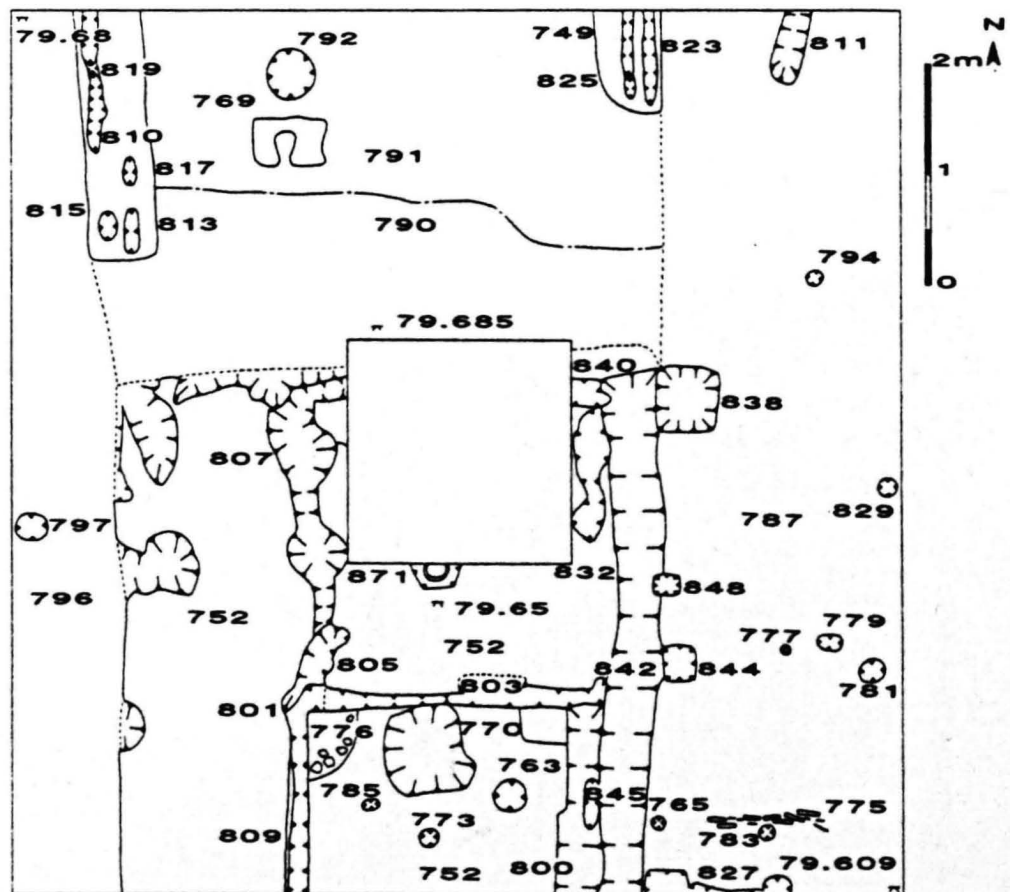


Fig. 84: Plan of structural phase I7

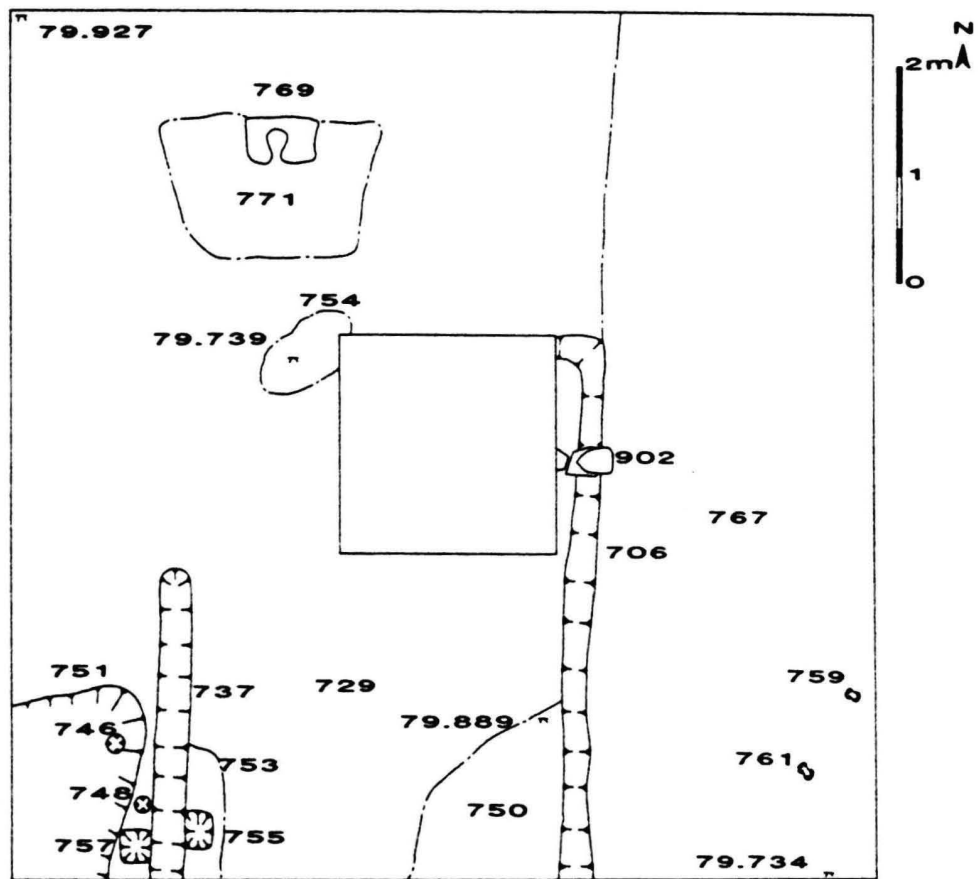


Fig. 85: Plan of structural phase I8

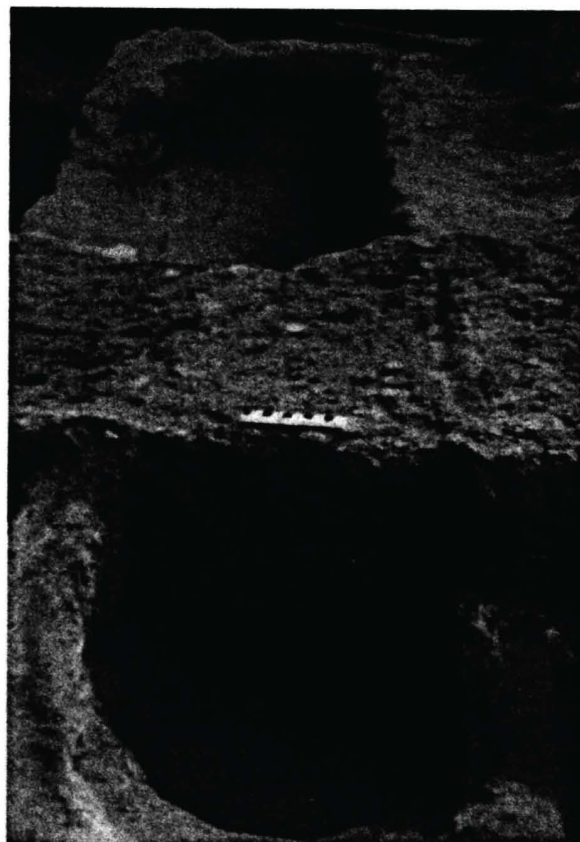


Fig. 86: Plan of trough 736 (structural phase H1)

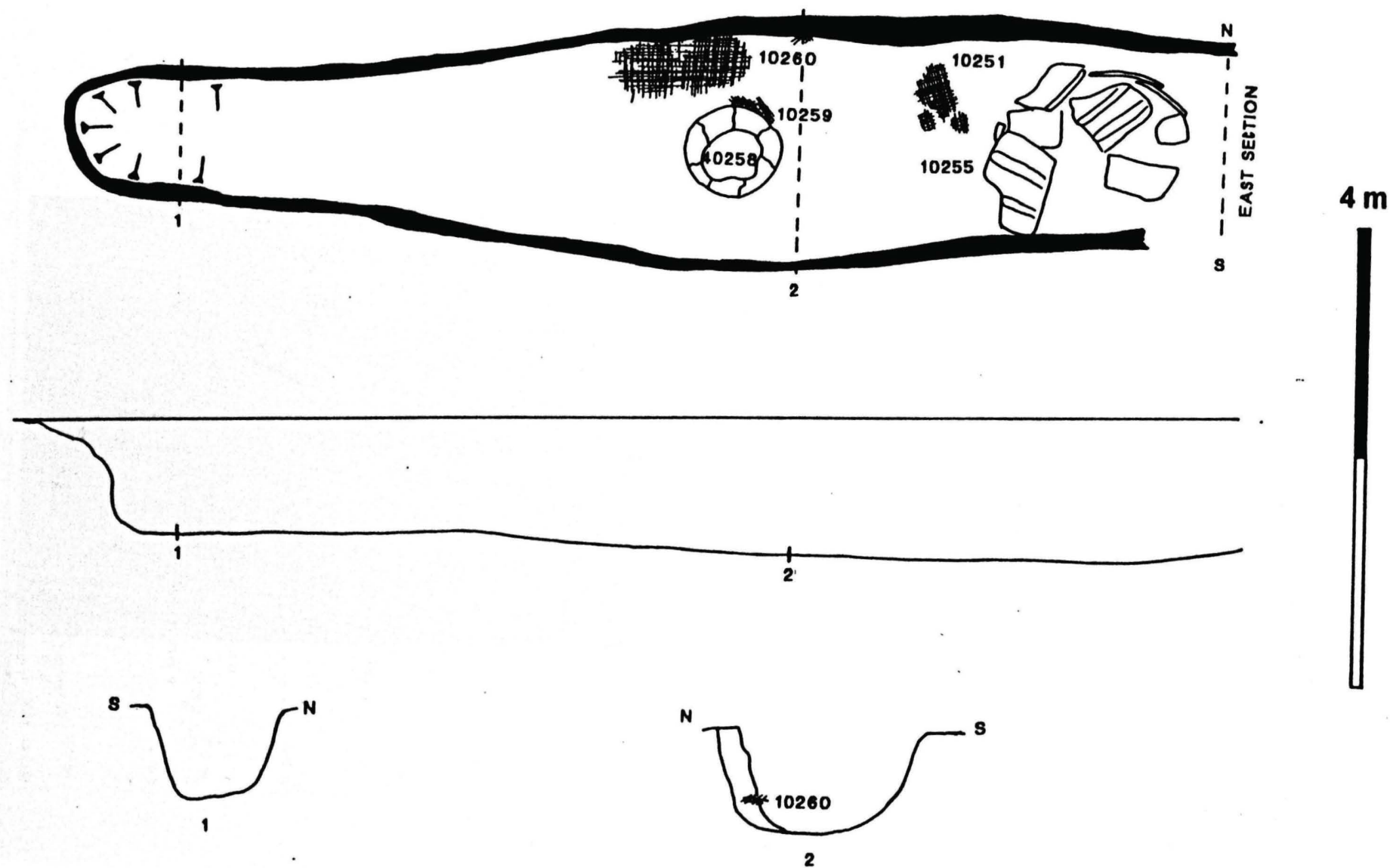


Fig. 87: Plan of trough 733 (structural phase H2)

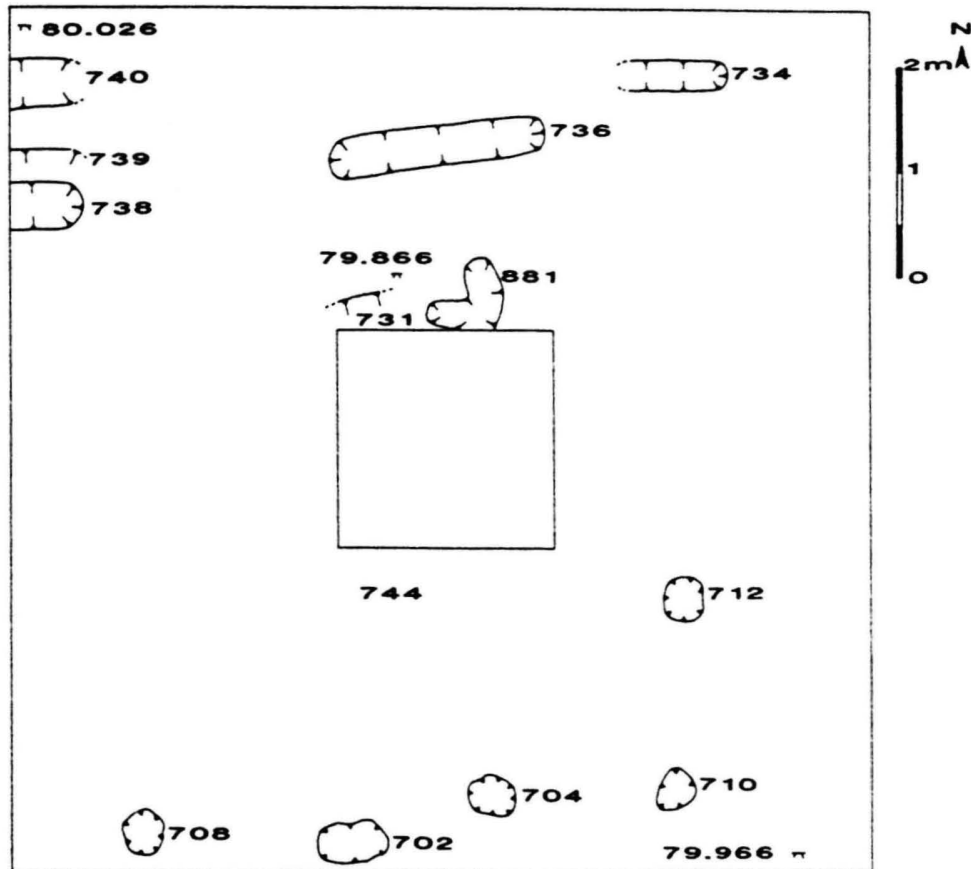


Fig. 88: Plan of structural phase H1

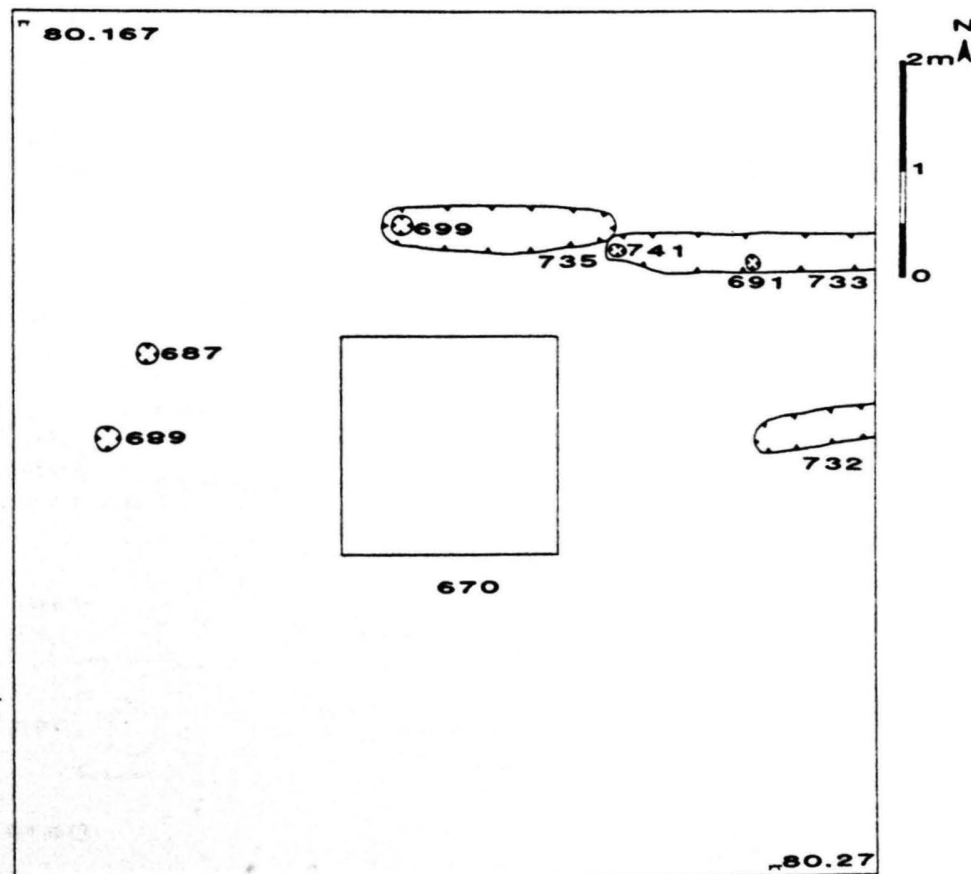


Fig. 89: Plan of structural phase H2

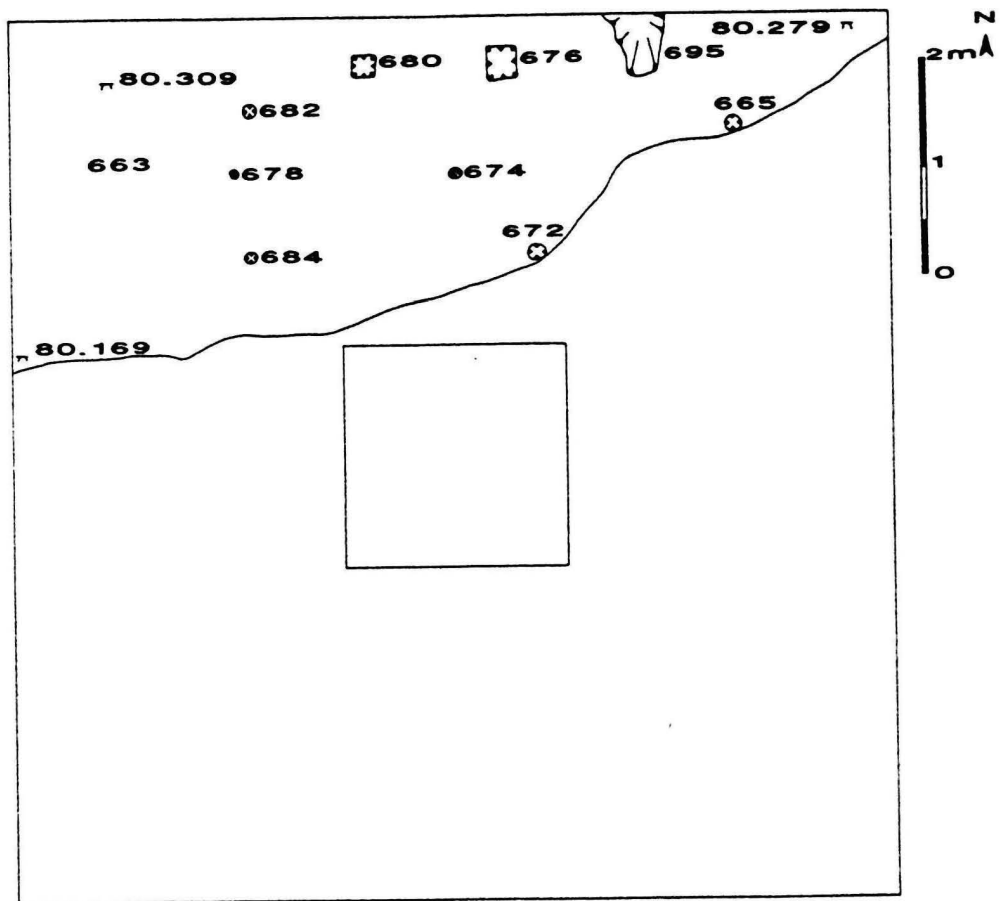


Fig. 90: Plan of structural phase G1

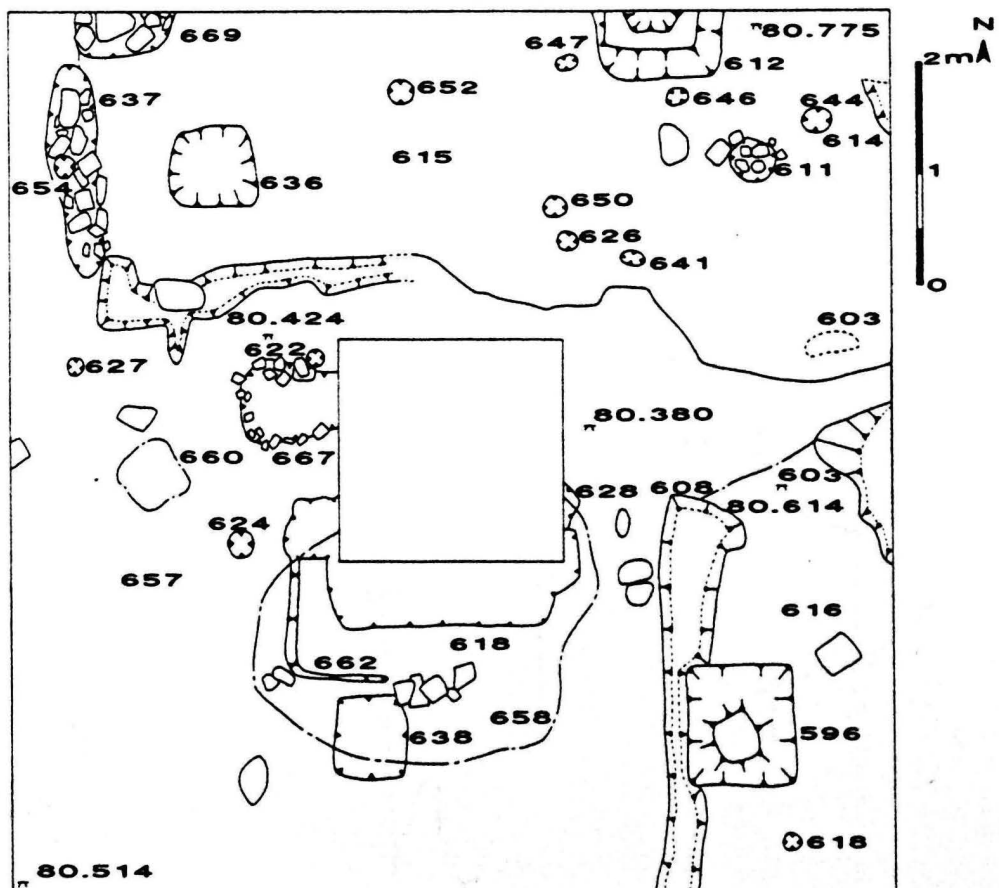


Fig. 91: Plan of structural phase G2

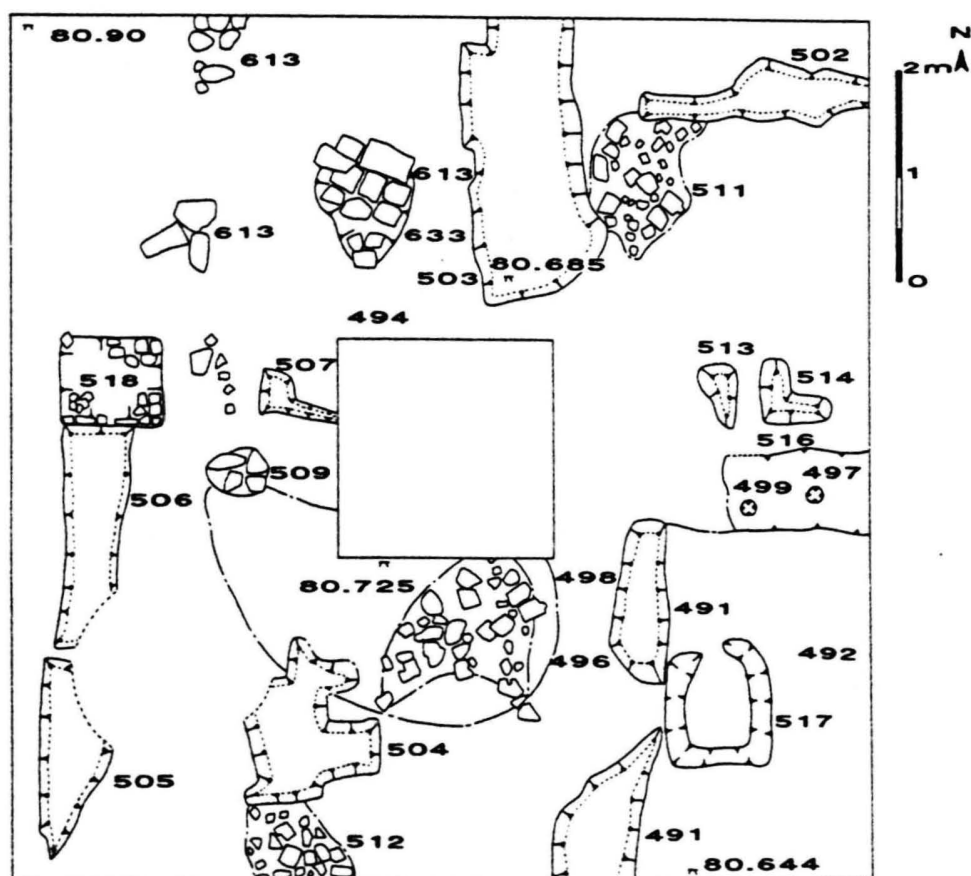


Fig. 92: Plan of structural phase G3

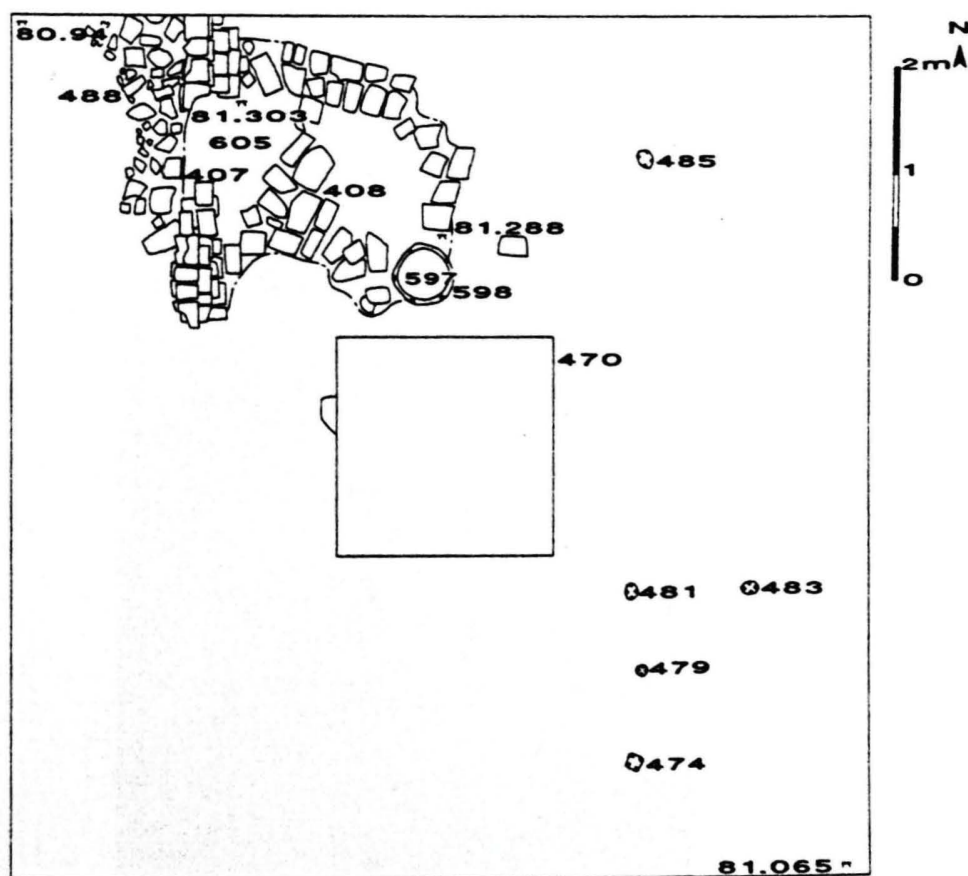


Fig. 93: Plan of structural phase G4

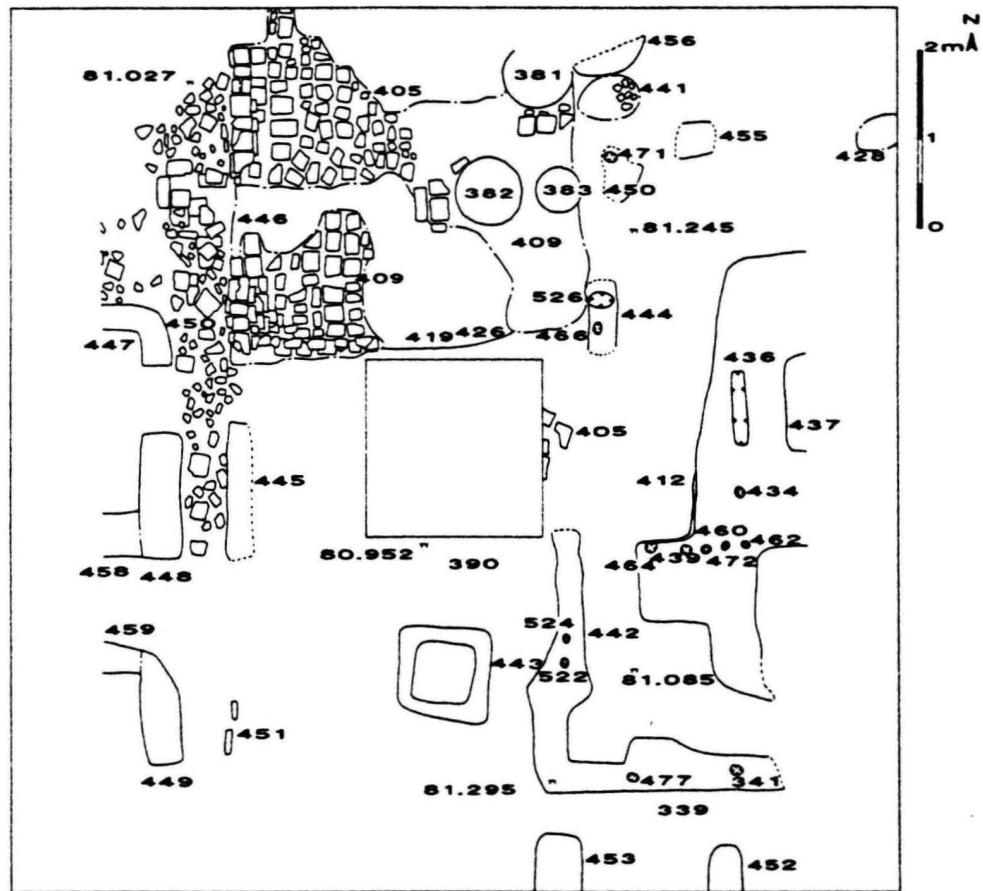


Fig. 94: Plan of structural phase G5

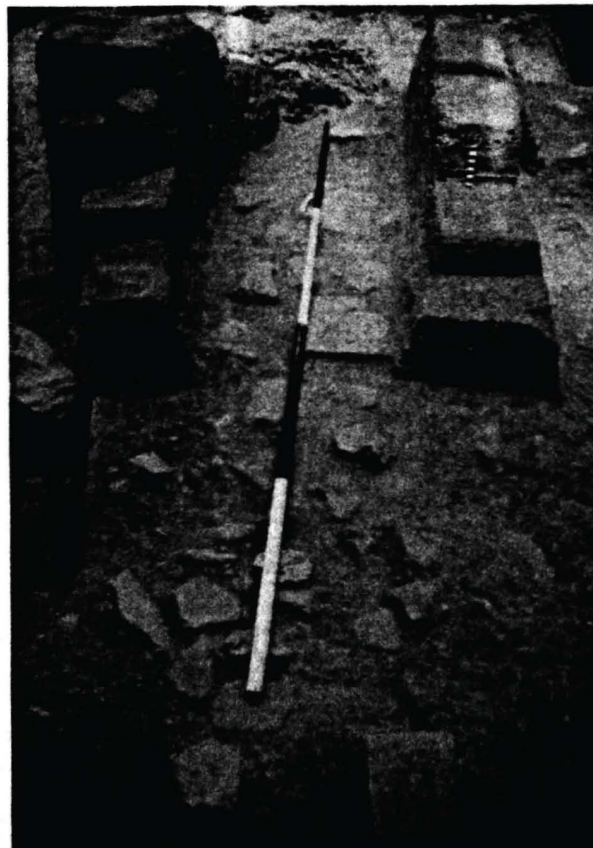


Fig. 95: Paving 450 (structural phase G5)

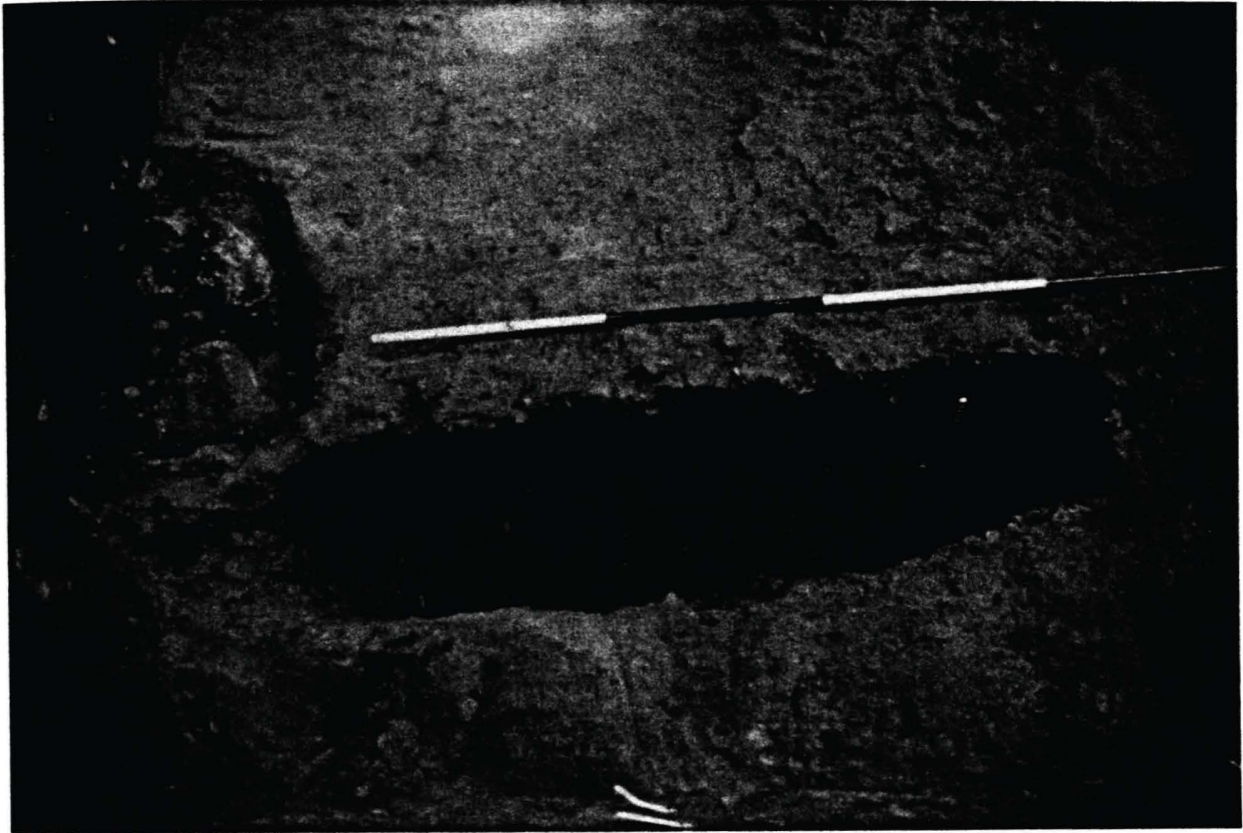


Fig. 96: Foundation pit 669 and slot 637 (structural phase G5)

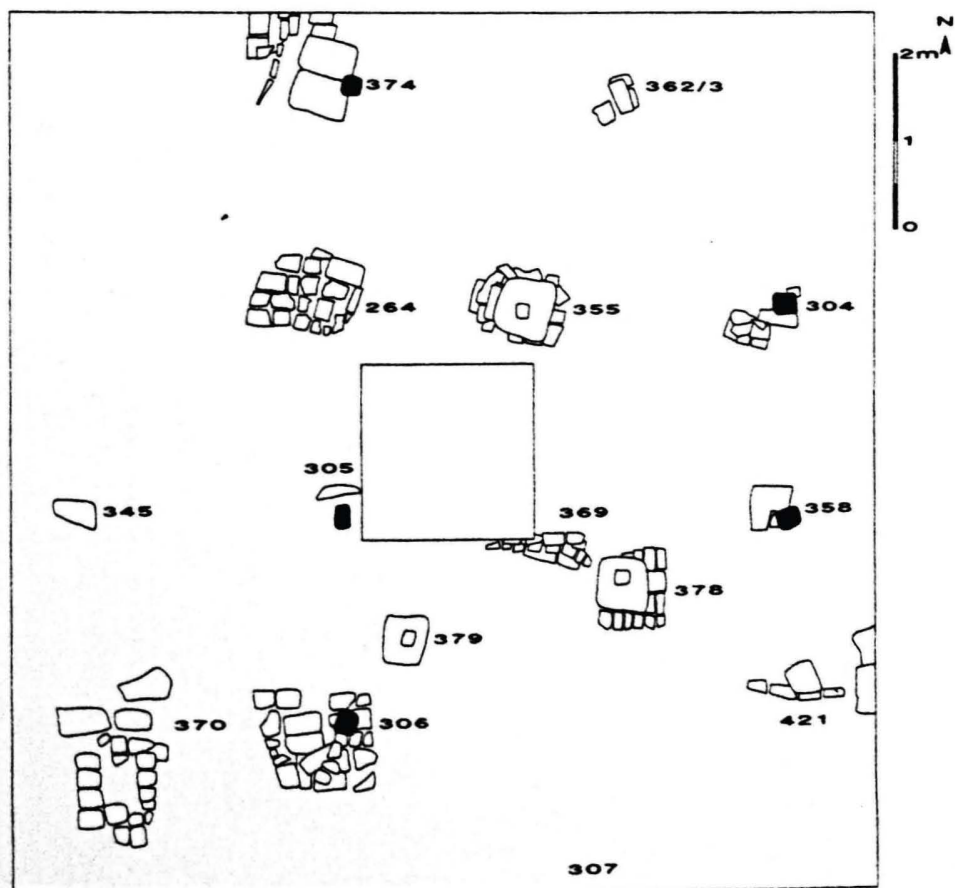


Fig. 97: Plan of pillar foundations (structural phase F)



Fig. 98: Pillar foundation 306 (structural phase F)

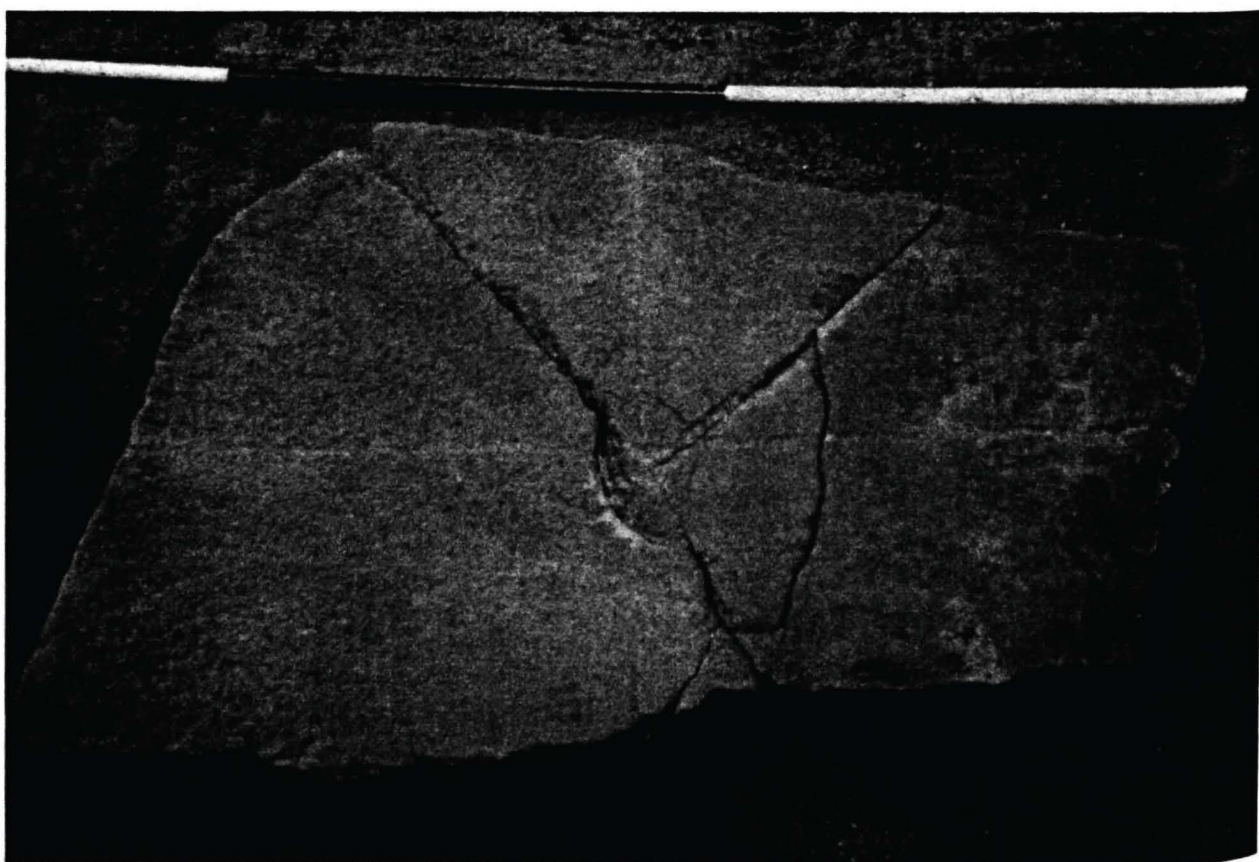


Fig. 99: Pillar foundation 306 (structural phase F)

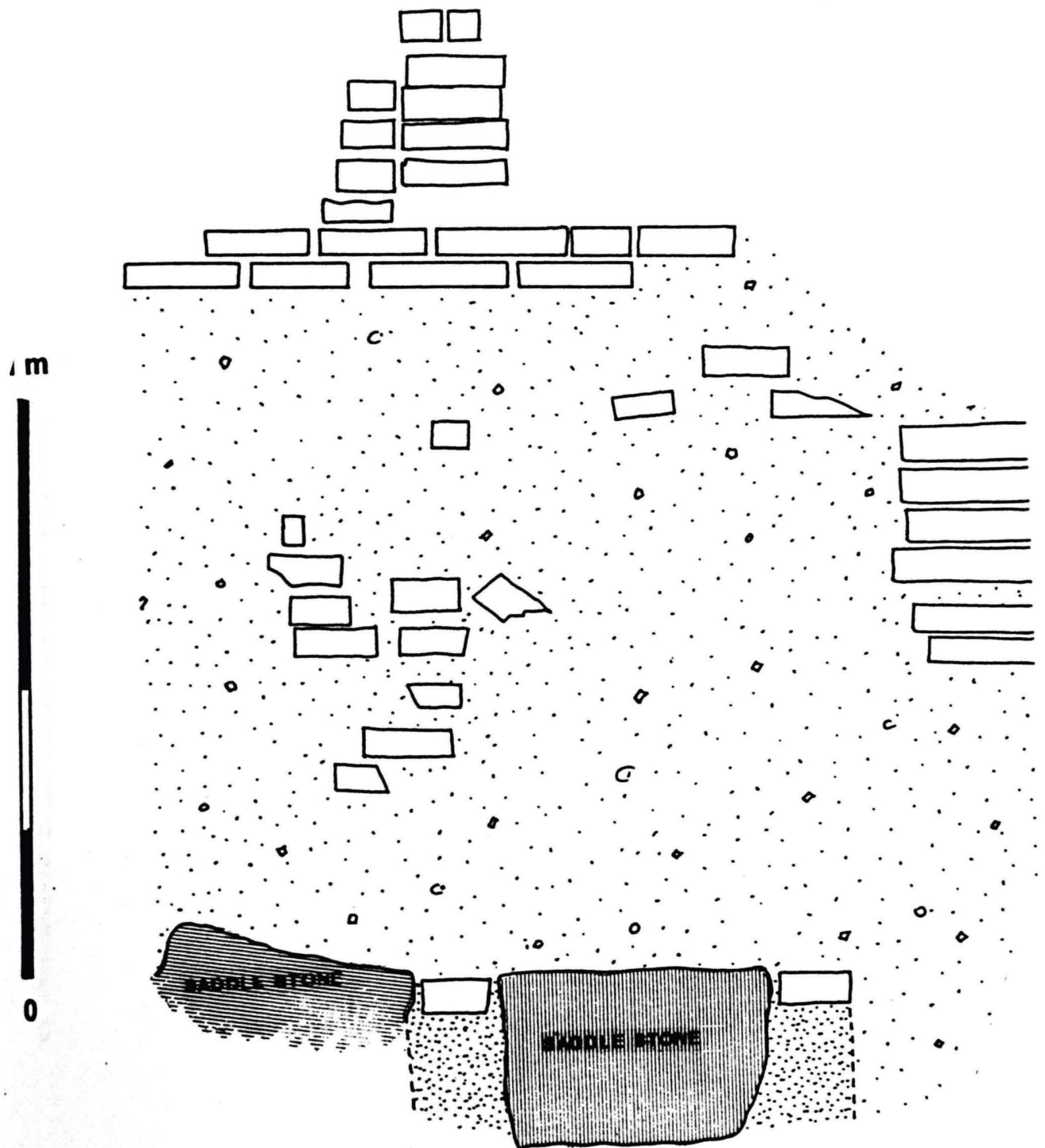


Fig. 100: Elevation of pillar foundation 370 (structural phase F)

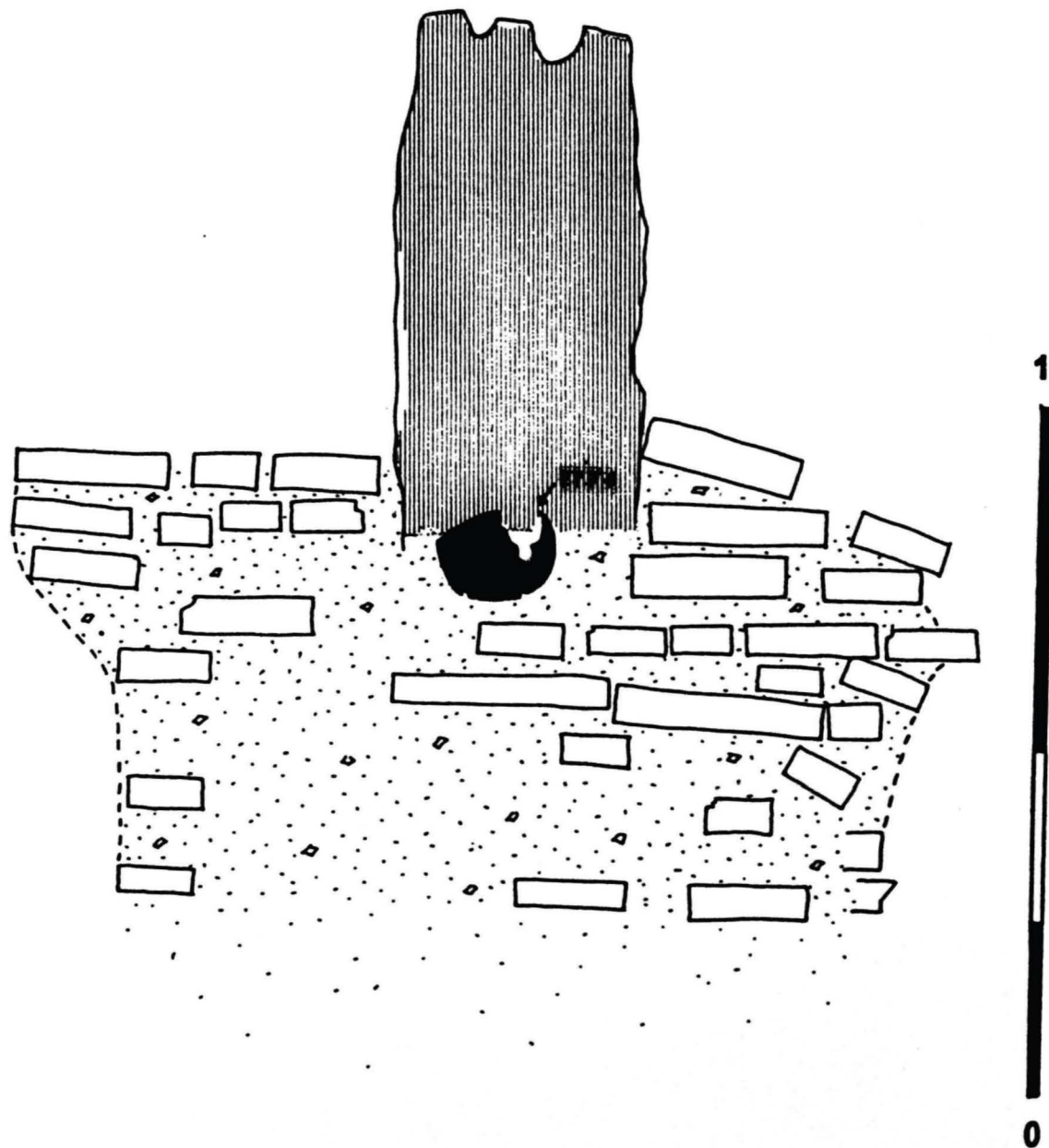


Fig. 101: Plan of pillar foundation 358 (structural phase F)

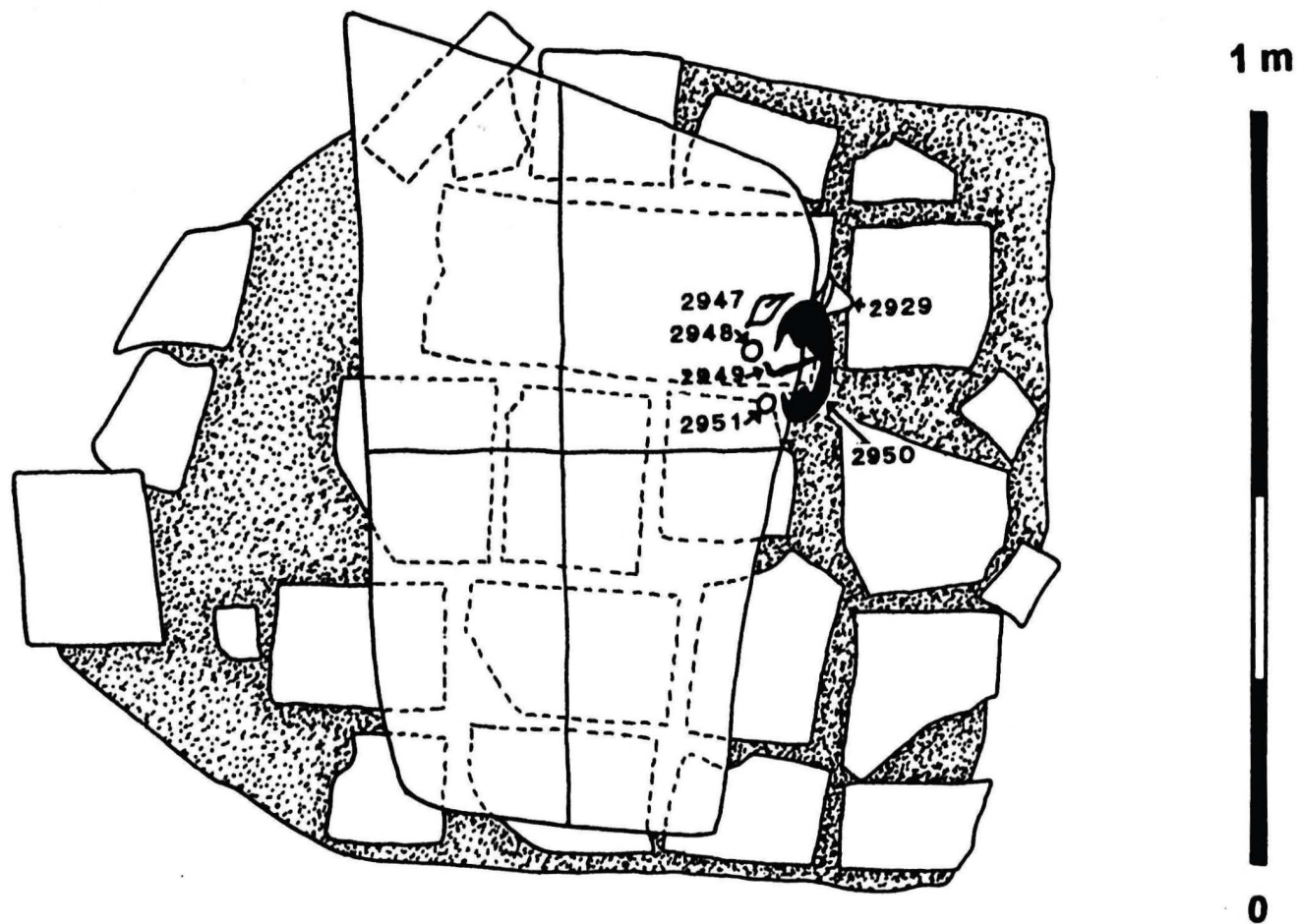


Fig. 102: Plan of pillar foundation 304 (structural phase F)

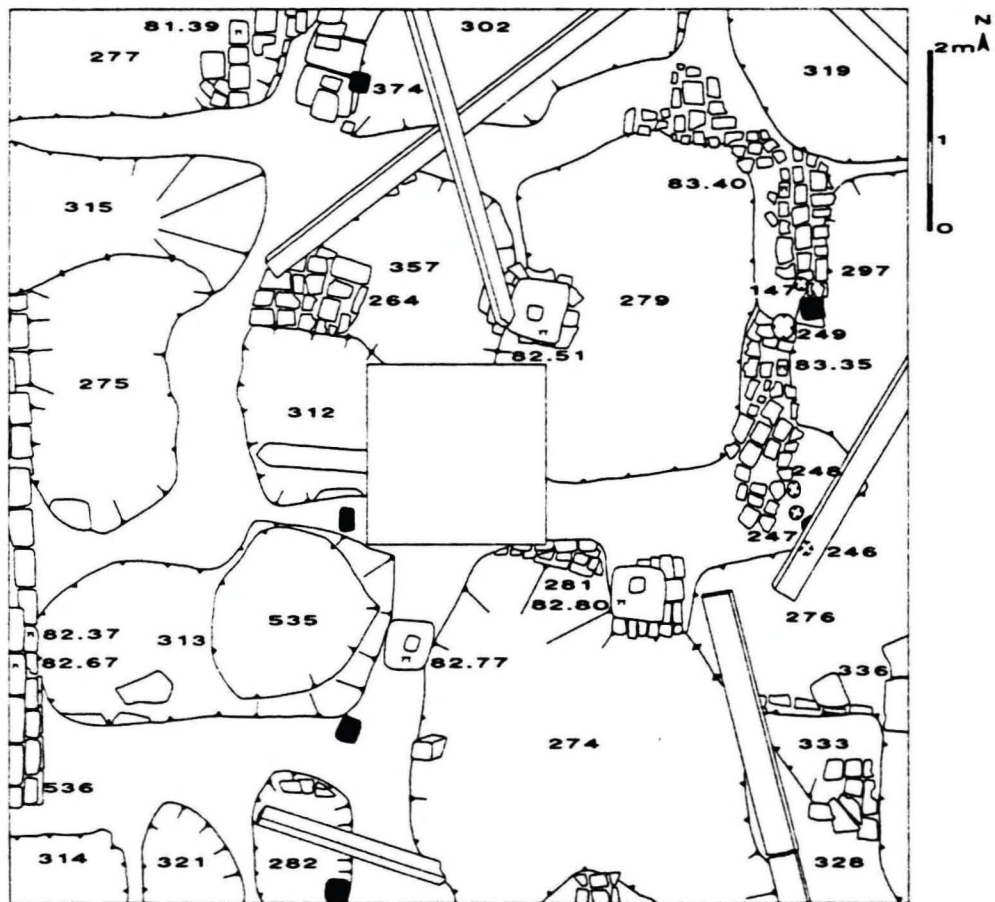


Fig. 103: Plan of structural phases D and E

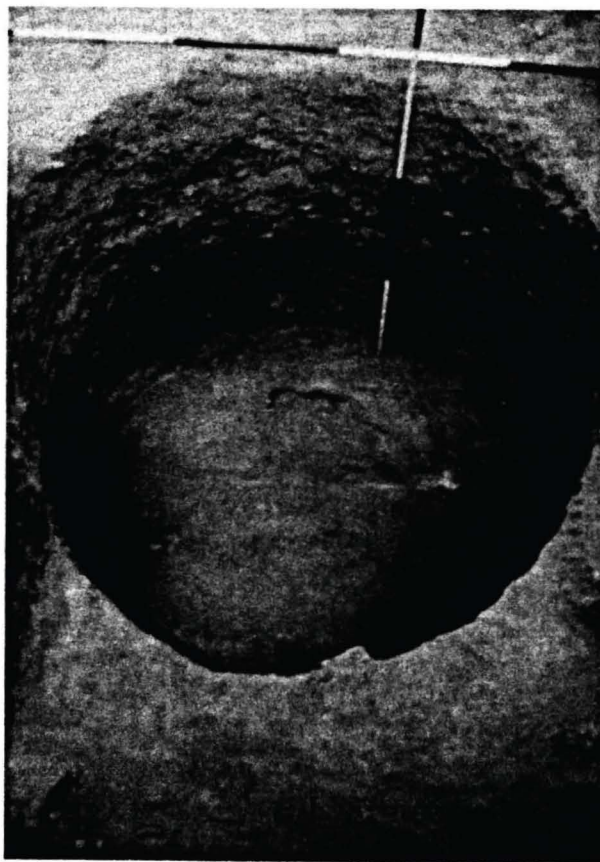


Fig. 104: View of base of pit 535 (structural phases D and E)



Fig. 105: Pit 274 (structural phases D and E)

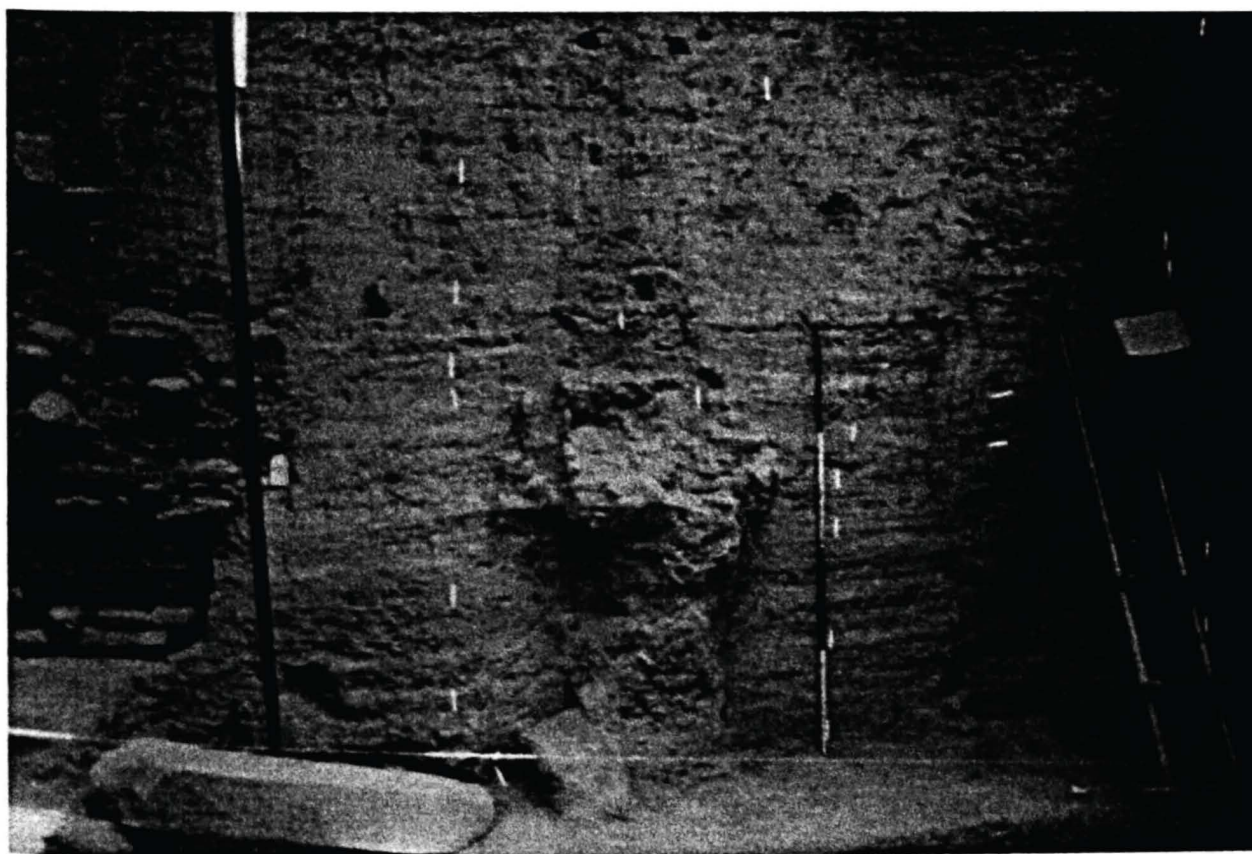


Fig. 106: Pit 274 (structural phases D and E)

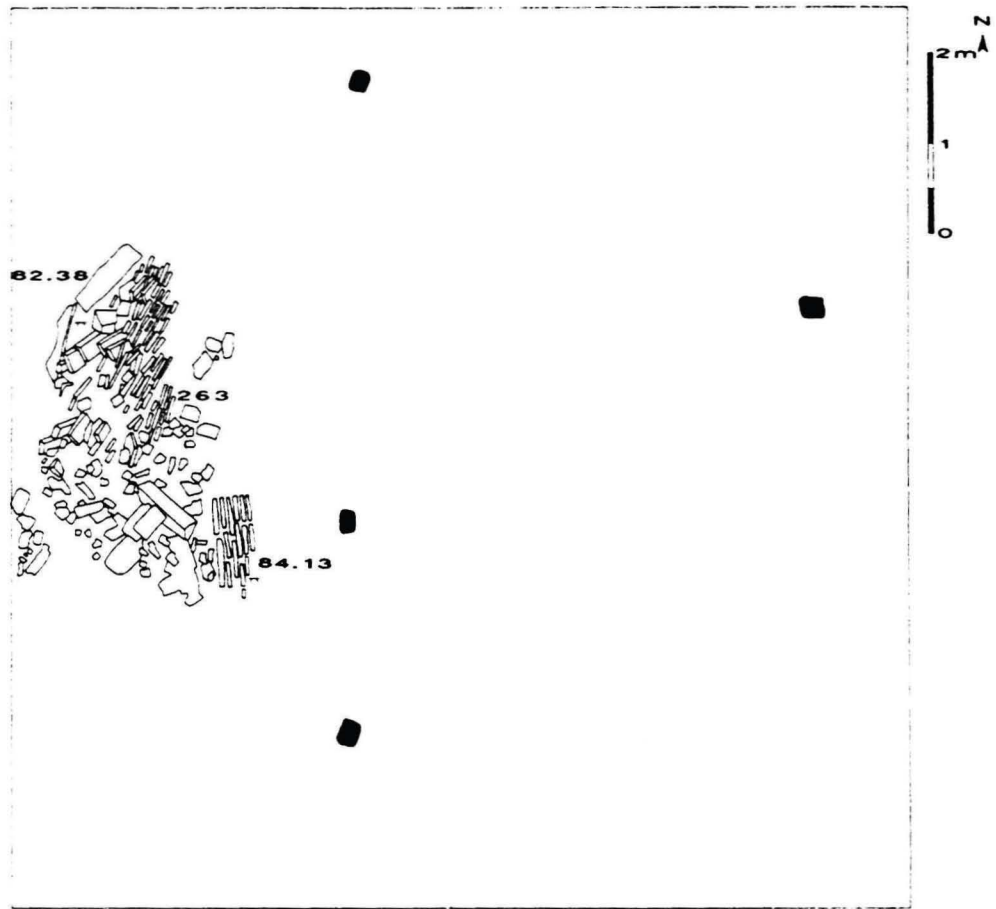


Fig. 107: Plan of structural phase C

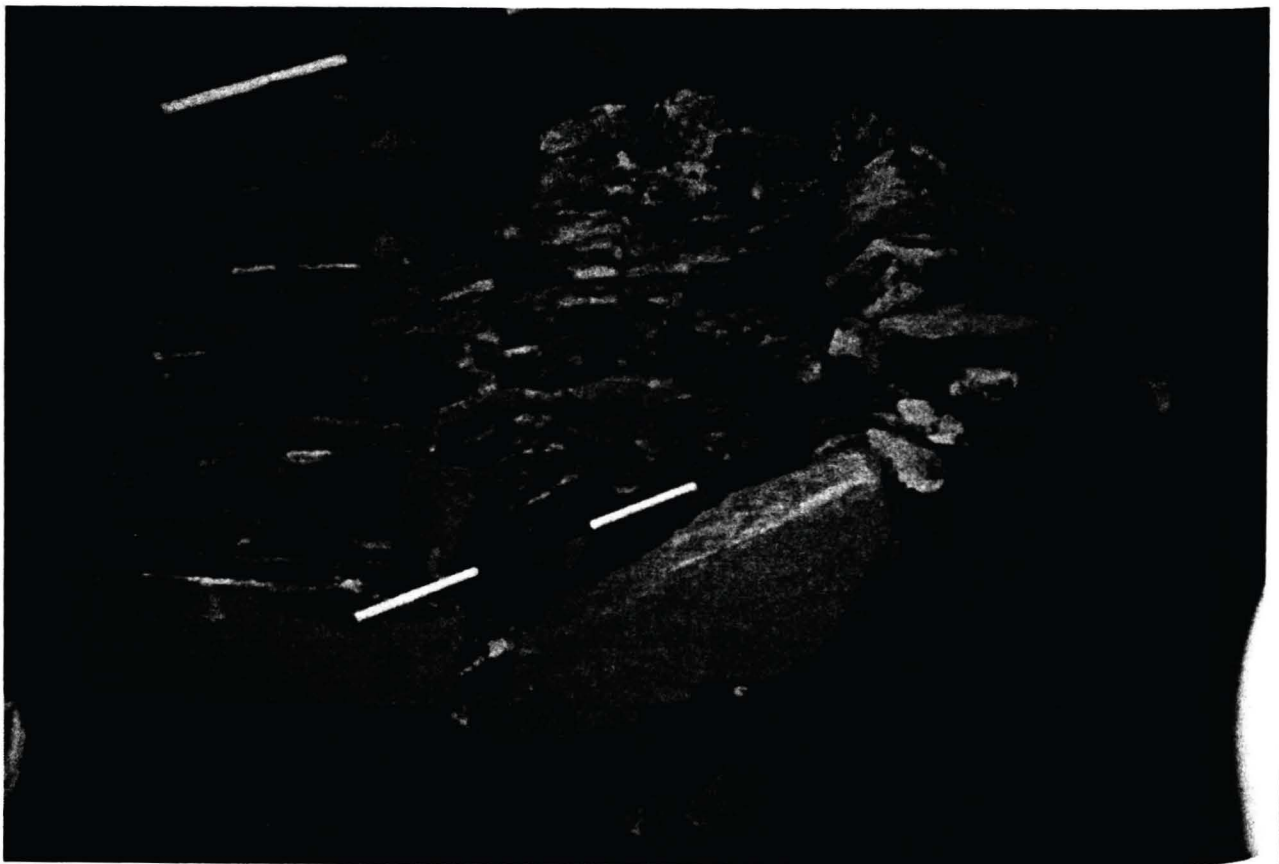


Fig. 108: Structural phase C

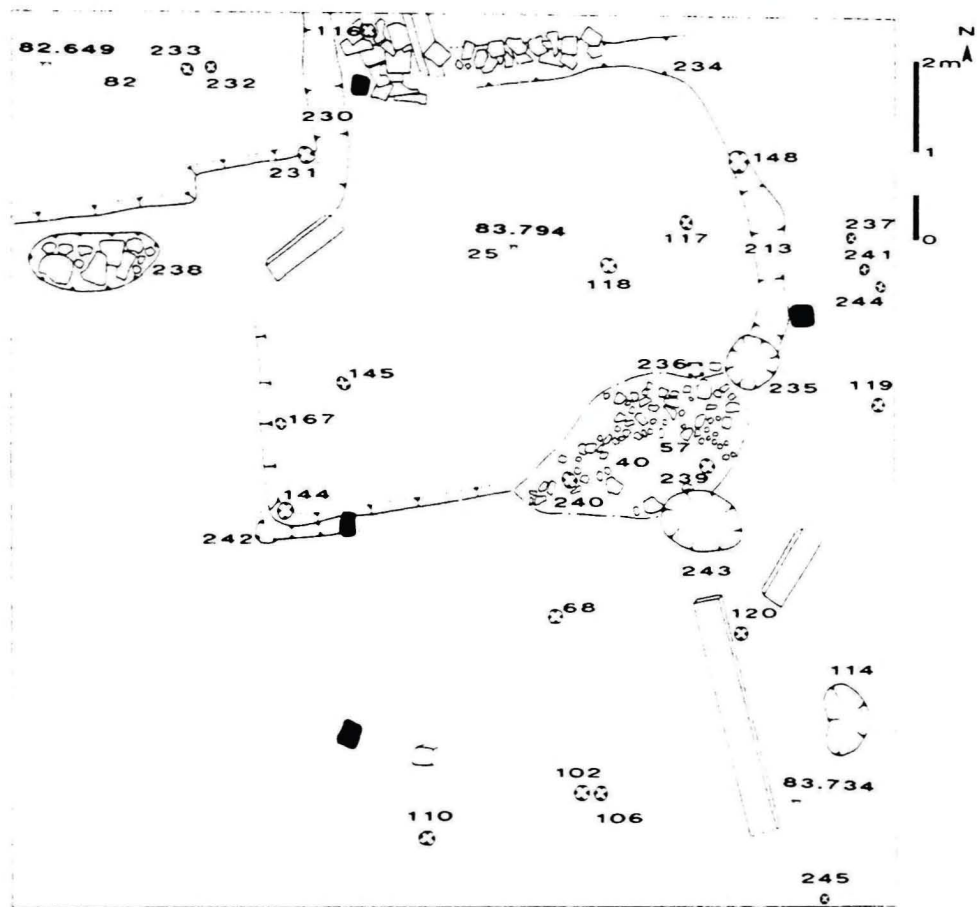


Fig. 109: Plan of structural phase B1



Fig. 110: View of southeast corner of structural phase B1

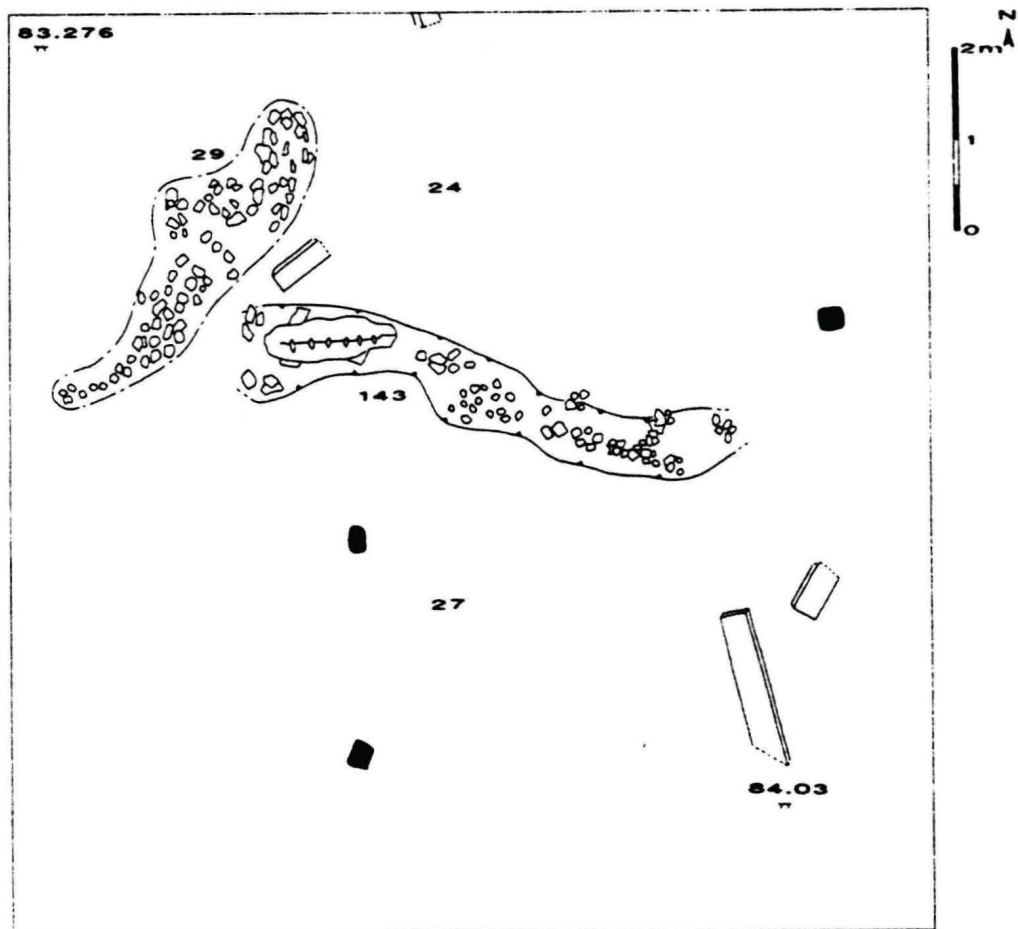


Fig. 111: Plan of structural phase B2

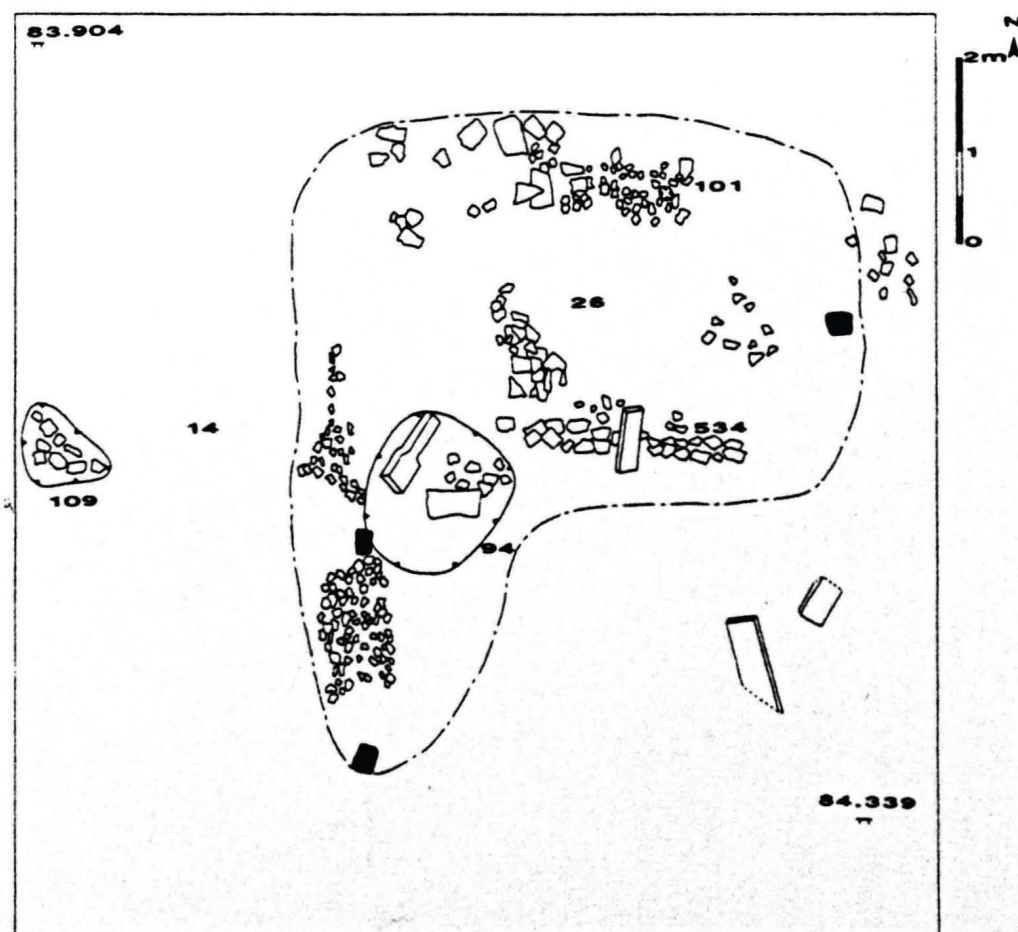


Fig. 112: Plan of structural phase B3

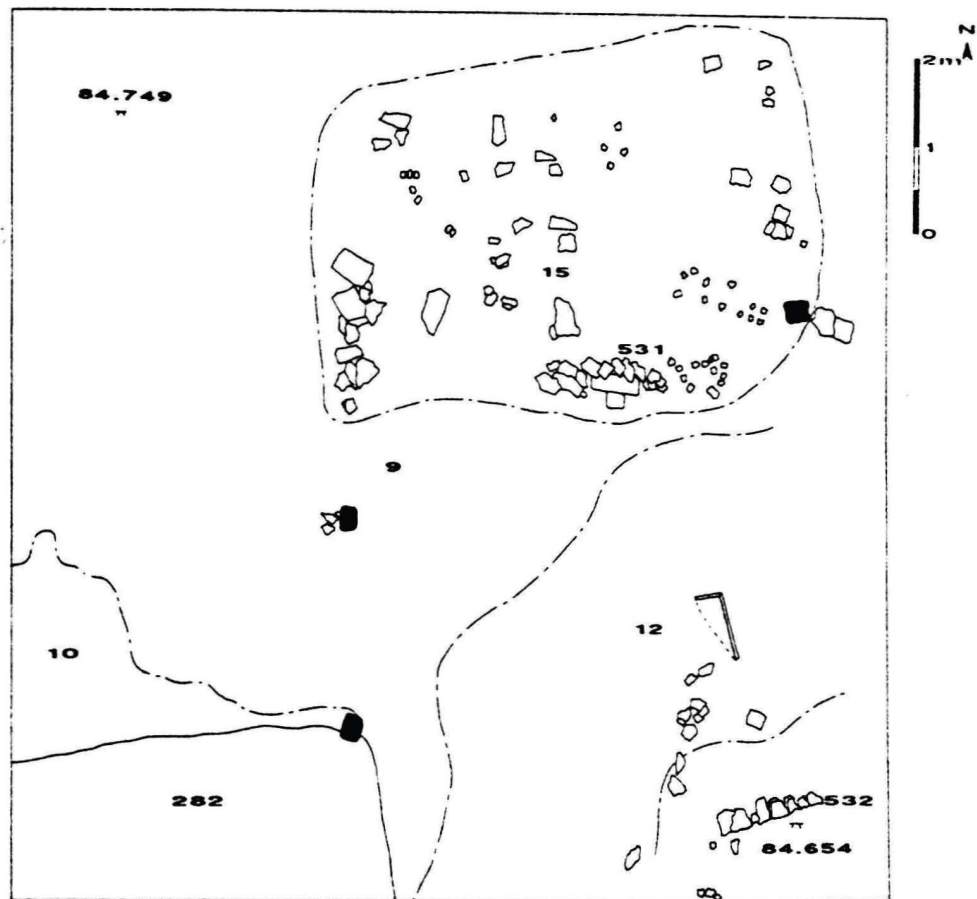


Fig. 113: Plan of structural phase B4



Fig. 114: Structural phase B4

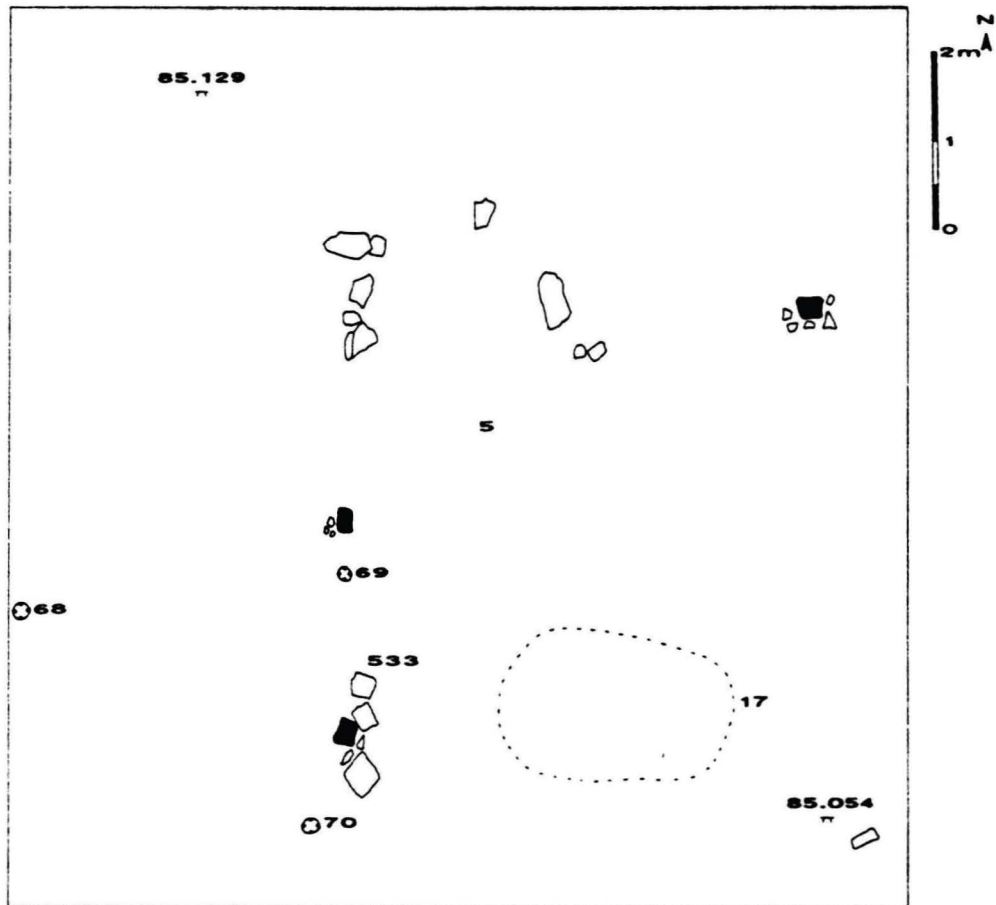


Fig. 115: Plan of structural phase B5

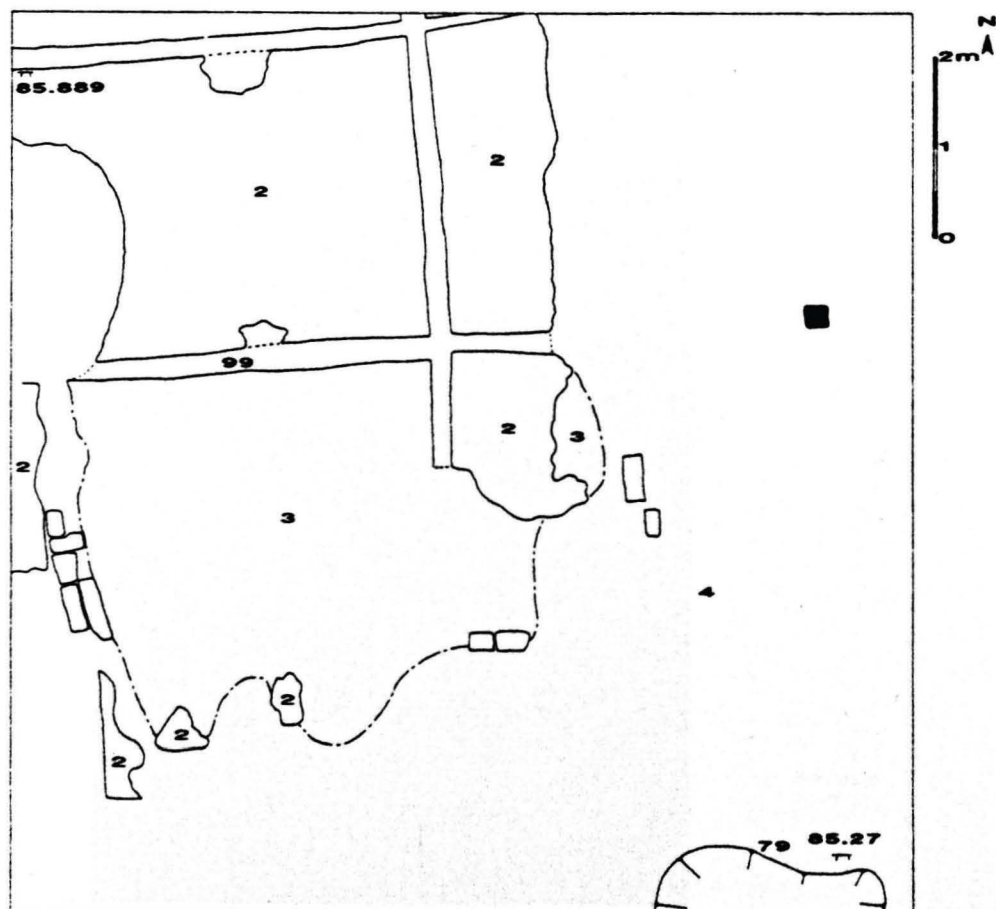


Fig. 116: Plan of structural phase A

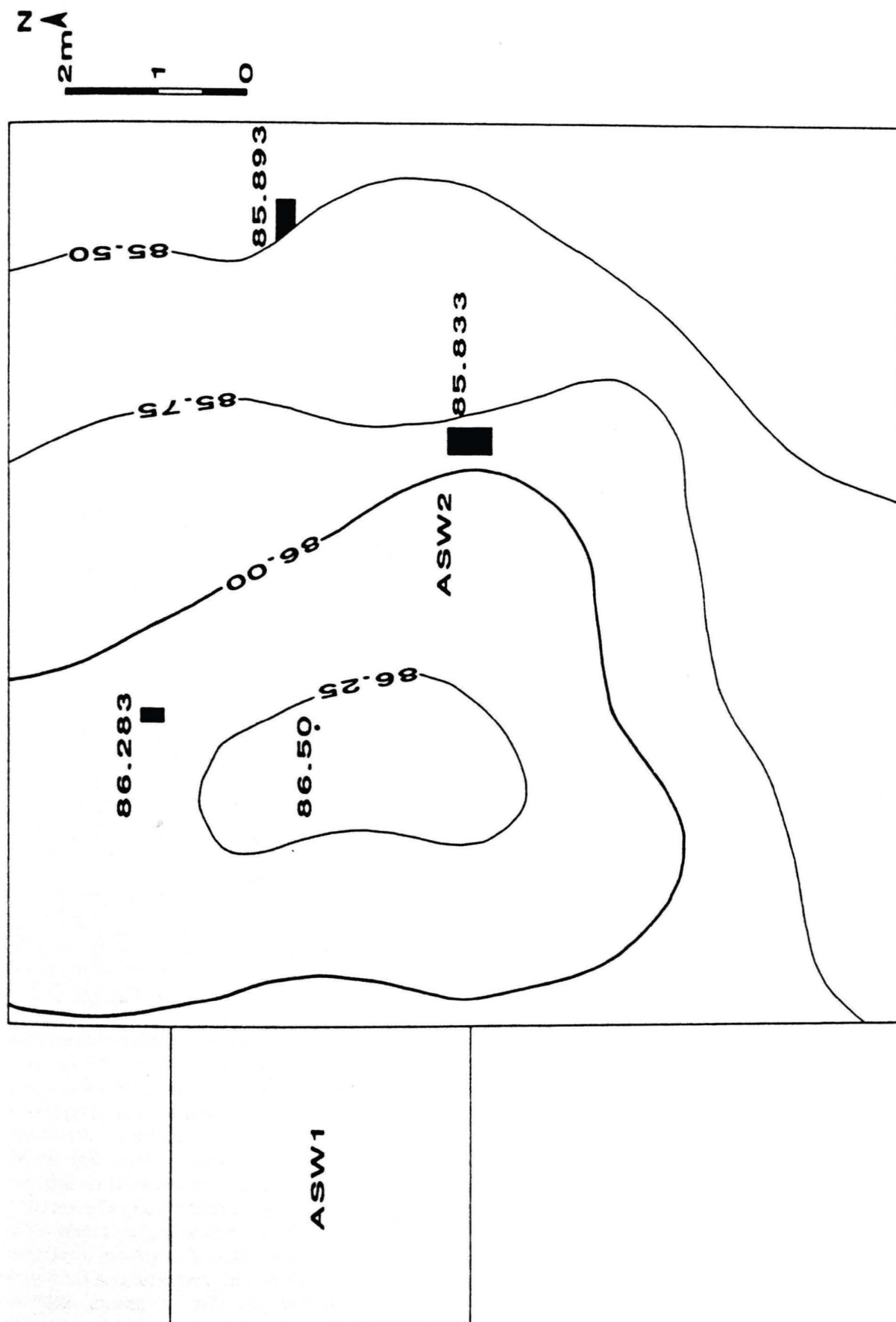


Fig. 117: Plan of the surface at ASW2 prior to excavation

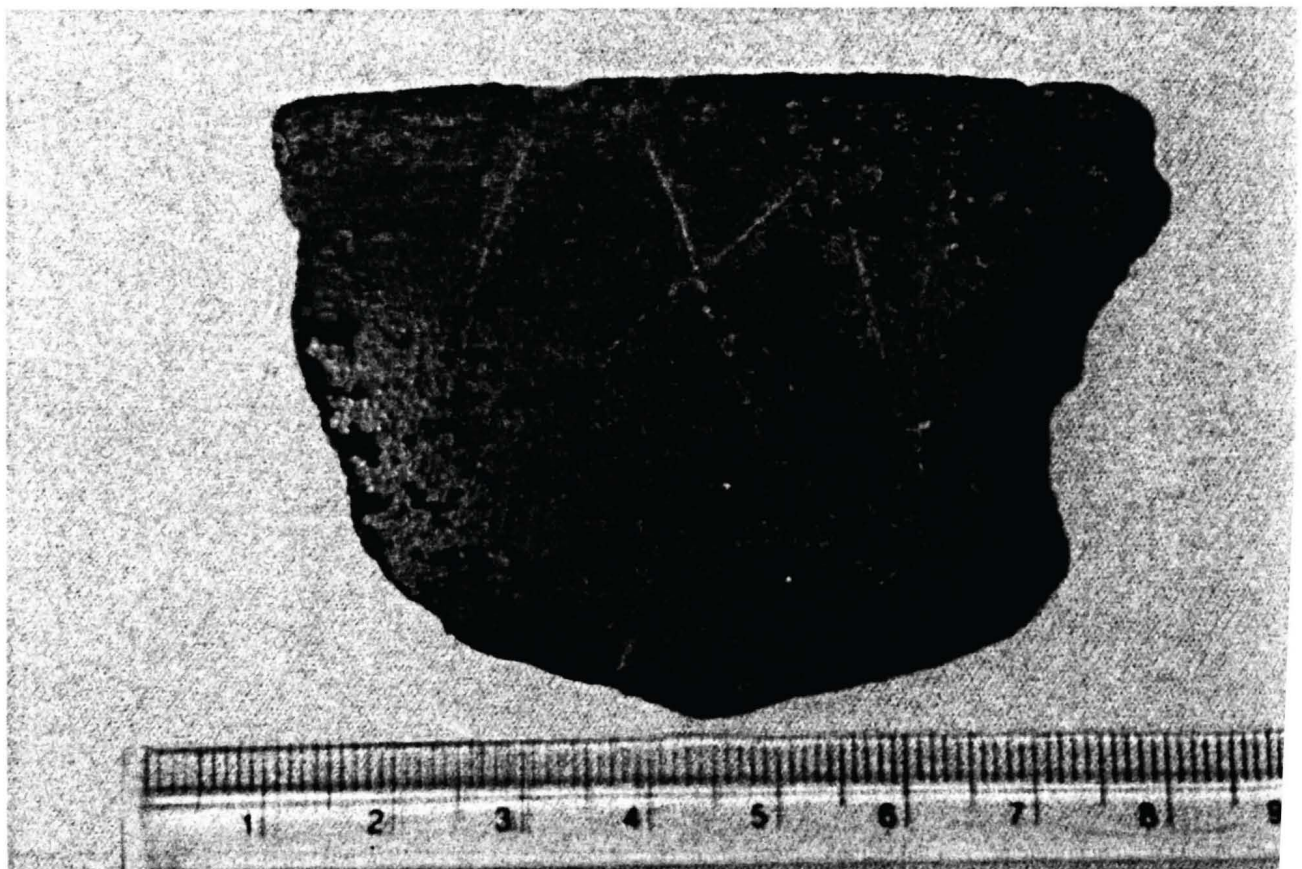


Fig. 118: Sf 17420 (structural phase J4)

CHAPTER 6

DATING THE SEQUENCE

Robin Coningham and Cathy Batt

6.1 Introduction

The sequence at ASW2 has been dated using a combination of absolute and relative dating. The structural sequence allowed us to construct a periodized sequence according to the presence or absence of certain chronological diagnostic artefacts. However, it is accepted that the chronology of many of the artefacts themselves is often in question as their own typologies were constructed either from collections, for example Codrington's 1924 catalogue *Ceylon Coins and Currency*, or from their relative depth in single tiny test pits cut into cities, for example Lal's 1949 *Ancient India* article 'Sisupalgarh'. In order to illustrate this factor we may cite the presence of punch-marked coins within our sequence at ASW2, the earliest clear examples of which (sf 16273 and 15802) were found in stratigraphic phase LIV, which corresponds with the final phase of structural phase I8 and a date of c. last quarter of the third century BC. According to Codrington's catalogue, these represent the earliest coinage within the island (Codrington 1924: 16). However, they were found in the same deposits as an elephant and swastika coin (sf 15800) and a tree and swastika or caitya coin (sf 15801) – coinage issues usually interpreted as being later in sequence. A further illustration is provided by the dating of Rouletted ware. When first discovered at the site of Arikamedu in southern India, Rouletted ware was dated to the middle of the first century AD on account of associated finds of imported Roman ceramics (Wheeler 1946: 59). Its date was later expanded to span the period from 150 BC to AD 175 (Begley 1983), and then from c. 200 BC to AD 200 (Deraniyagala 1986: 43). Most recently Deraniyagala has proposed a date as early as the fifth–fourth centuries BC for this ceramic (Deraniyagala, pers. comm., 1997). It should also be noted that the presented periodization is based upon the excavation of a single trench at locality ASW2, and one should expect variations in the presence, absence and dating from locality to locality within the entire urban complex of Anuradhapura. In view of the above points we have chosen to rely on the results of the measurements and subsequent calibration of radiocarbon dates from ASW2 and their position within our structural sequence. More detailed information concerning the various artefact categories noted below, and their illustrations, are available in Volume II of this work, *Anuradhapura: The Artefacts*.

As the radiocarbon dating of ASW2 is crucial to this

debate, further discussion is necessary as to the calibration used and the origin and nature of the samples measured. A total of 29 radiocarbon determinations were available from 18 of the structural phases excavated at ASW2. The radiocarbon measurements, both Accelerator Mass Spectrometry (AMS) and conventional, were carried out on charcoal from short-lived materials by radiocarbon laboratories at the British Museum (BM) and Beta Analytic (Beta). In addition to the radiocarbon determinations, there were extensive stratigraphic records from which the relationships between the structural phases and periods and their assorted radiocarbon samples could be determined. It is necessary to calibrate radiocarbon dates before using them in the interpretation of the site in order to take account of changes in the concentration of radiocarbon in the atmosphere (Bowman 1994: 43). For the last 10,000 years such calibration is carried out using curves based upon a comparison of dendrochronological age with radiocarbon concentration from long-lived tree species. Unfortunately, the calibration of radiocarbon determinations is not a straightforward procedure leading to a simple 'pushing back' of dates by a fixed amount; there are two other factors which need to be considered. Firstly, there is ambiguity in the interpretation of results from the calibration curve as it is not a simple linear function, hence the span in the calendar date corresponding to the error limit span of the radiocarbon determination may be considerably greater, and in some cases there may be several possible calendar date spans corresponding to a single radiocarbon determination. Secondly, the calibration curve itself will have an error limit band and this will inevitably widen the calendar date span. This means that, in practice, apparently precise uncalibrated determinations may result in multiple calendar dates with much greater error ranges (*ibid.*). It must be emphasized that calibration of radiocarbon dates is not merely an optional extra but fundamental to any use or interpretation of the information.

Initial calibration of the radiocarbon determinations for Anuradhapura was carried out using OxCal V2.18 (Bronk Ramsey 1994), based on the internationally agreed calibration curve of Stuiver and Reimer (Stuiver and Reimer 1986). The radiocarbon ages and calibrated dates are shown in Appendix C. No southern hemisphere correction was used, as the validity of such a correction in the latitude of Sri Lanka has yet to be established. When we looked at the initial probability

distributions of the calibrated dates from Anuradhapura, a number of effects were evident. As expected, the dates were earlier than the radiocarbon determinations; in some cases the radiocarbon calibration resulted in multiple ranges at the one end, and more commonly, the two standard deviation confidence levels; and the age range was increased. The latter effect was particularly noticeable between 400 BC and 800 BC, where the calibration curve is effectively flat. Consequently, calibrated dates for phases within this range had much larger calendar date ranges, making detailed interpretation of the dating extremely difficult. Simple calibration of individual radiocarbon dates, however, does not make any use of the stratigraphic and other archaeological information that is available. In order to utilize radiocarbon determinations to their full extent, use must be made of such other sources of information. Much theoretical work has been carried out using stratigraphic information in conjunction with radiocarbon calibration to reduce the age ranges on dated events (e.g. Buck *et al.* 1991). These issues are addressed in the calibration and analysis program OxCal (Bronk Ramsey 1994).

The radiocarbon determinations for ASW2 were reinterpreted using OxCal, taking into account the stratigraphic information available: namely that the structural phases were in simple stratigraphic order from G5, the most recent, to K1, the oldest, and that material used in the radiocarbon determinations was securely from short-lived samples within the phases to which the dates are attributed but could be from any date or sequence within that phase. The archaeological evidence supported this interpretation. The probability distributions generated when taking into account the chronological model are shown in Figure 119. It can be seen that the stratigraphic information serves to constrain the calibrated dates to much narrower ranges. The percentages are an index of how well the chronological model agrees with the dating evidence; in some cases the agreement is better than expected and is greater than 100 percent, in other cases it is poorer. On a much more positive note, the charcoal was predominantly, where identifiable, of roundwood, that is twiggy growth, from *Lumnitzera racemosa* and *Lumnitzera* (C. Cartwright, pers. comm.), removing the likelihood that samples had been re-used through a number of structural phases. This interpretation is supported by examination of the dating sequence, which shows no evidence of re-use of wood, with the possible exception of the sample from context 905, structural phase I4, where the anomalously early age determination might indicate that the sample comprised earlier material. However, in the absence of supporting archaeological evidence for this suggestion, the sample has been retained in its stratigraphic position in the dating sequence. In conclusion it may be stated that, although the interpretation of the dates of the sequence after calibration of the radiocarbon determinations is hampered by the nature of the calibration curve between 400 cal. BC and 800 cal. BC, it has been possible to

achieve a detailed interpretation of the dating by combining the radiocarbon determinations with stratigraphic information through the use of Bayesian methods.

6.2 Structural period K

Although there is evidence that the low mound on the left bank of the Malvatu Oya was occupied by microlithic tool-using hunter-gatherers as early as c. 3000 BC, settled occupation at the locality of the trench may have begun no earlier than the ninth century BC. At ASW2 this first period, labelled structural period K, consisted of three phases of lightly constructed, perhaps temporary, structures located in the vicinity of a low outcrop of gneiss boulders. Measurement of the three charcoal samples (Beta-48920, 48917 and 48916), bulk recovered from the surface of levelling/occupation floors in each of the three phases (contexts 1616, 1714 and 1811), suggests an occupation of between c. 840 and 460 cal. BC. Finds of black and red ware pottery, iron objects and iron-working technology and a concentration of cattle, hare and deer remains correspond with the artefact indices of Deraniyagala's Period III, the Protohistoric Iron Age (Deraniyagala 1990b: 253). Sherds bearing non-scriptural graffiti and 'megalithic symbols' were recovered from this period. It is thus evident that this associated culture complex belongs within the Iron Age traditions of peninsular India.

6.3 Structural period J

The second period, J, has been dated to c. 510–340 cal. BC and consists of five phases of round structures. It is clear from the size and depth of J's postholes that the structures represent more permanent occupation, a point reiterated by the accompanying increase of postholes and structure diameters. The radiocarbon measurement for J1 was derived from a bulked sample (Beta-48921) in levelling/occupation floor 1496 which was sealed by levelling/occupation floor 1407. Sample Beta-48922 from phase J2 came from a post (1417) in a posthole of 15 cm diameter cut into 1407. Floor 1407 was in turn sealed by levelling/occupation floor 1293. In the succeeding structural phase J3, cut into 1293, we recovered sample Beta-48924 from the basal fill of a small furnace or oven (1342) and Beta-48923 from the basal fill of a pit (1382). These features were then sealed by levelling/occupation floor 1175 which contained charcoal sample Beta-57701. Phase J4's other charcoal samples (Beta-48918, 48919 and 57702) came from the basal fills of a small furnace or oven (1291 and 1236) cut into 1175. These features were sealed by levelling/occupation floor 1174, into which were cut the features of structural phase J5. The artefactual record continued relatively unchanged from period K, black and red burnished ware still dominating the ceramics, but with the addition of a small number of medium fine grey ware sherds. Paste beads, iron slag, iron, copper, shell, amethyst and quartz objects and debitage were also present. It is notable that the first examples of

horse bones were present in the faunal record during this phase. A scapula was recovered from stratigraphic phase XXIII, which corresponds to structural phase J4. The horse is not one of the island's modern endemic species. The Iron Age affinities of this period appeared to be reiterated by the identification of a circular pit from J3 (1472). The pit, with a diameter of 1.25 m, was filled with ash and sealed with river gravel; it contained an iron leaf-head-shaped arrowhead (sf 10679), a short length of copper alloy wire (sf 10673), a polished rubbing or sharpening stone (sf 10680), three black and red ware burnished cups with holes drilled in their bases (sf 10675, 10676 and 10677) and two other vessels with non-scriptural graffiti (sf 10678 and 10681). Although no human bones were found in the pit, the mandible of a dog and a lumbar vertebra of a chevrotain or Indian mouse deer were recovered. The pit appears to be very similar in form and content to the pit burials found in association with the peninsular Iron Age (Thapar 1957; Begley 1981). The complementary nature of the artefactual collection from J is, however, incomplete because of the presence in this period of the four sherds bearing portions of Brahmi inscriptions (sf 17308, 17425, 17332 and 17330). Period J can therefore be identified with Deraniyagala's Period IV, the basal Early Historic, which was characterized by a 'low lustre medium-light grey ware', styli and Brahmi inscriptions on sherds (Deraniyagala 1990b: 256). The finds from ASW2 confirm the presence of the latter, a stylus from J3, three Brahmi inscriptions and a stylus from J4, and a Brahmi inscription from J5. Two sherds of grey ware were recovered, one from J1 and the other from J2, but none from the earlier phases of J. It is interesting to note the presence of three bones belonging to the Indian pond terrapin, or *Melanochelys trijuga thermalis*, in this structural phase. They are commonly found in slow-flowing or sedentary bodies of water, and their presence here may indicate a beginning of the manipulation of natural and domesticated flora and fauna connected with the management of water. Perhaps corroboration for this may be found with the earliest evidence of *Oryza sativa* Linn., rice, also recovered from structural period J, from within the fill of pit 1402 in stratigraphic phase XVII, which correlates with structural phase J3.

6.4 Structural period I

The succeeding period, I, is dated to between c. 360 and 190 cal. BC. At the beginning of this period a major change occurred in the structural content of the locality: round structures were replaced by cardinally oriented square or oblong ones. During the first phase, I1, a single-roomed rectangular structure covering an area of some 6 square metres was constructed on the surface of levelling/occupation floor 1125. Two samples of charcoal, Beta-48925 and BM-2877, were recovered from the basal fills of a small furnace or oven (1173) cut into 1125. Floor 1125 was then sealed by levelling/occupation floor 1101, from which the inscribed sherd sf 17040 was recovered. Samples

Beta-48927 and 48926 were recovered from the basal fills of a small furnace or oven (1112 and 1113) cut into 1101's surface. Floor 1101 was sealed by levelling/occupation floor 977 into which had been cut furnace or oven 1096, the fill of which (1097) had provided sample Beta-48928. Level 977 was then sealed by levelling/occupation floor 961, on top of which the fourth phase, I4, was constructed. I4's plan still included the I1 room at its core, but a further room was constructed to its north and a corridor or verandah added to the west of both rooms. The walls were constructed of posts and covered in wattle and daub and, although the first phases were probably roofed with grass or palm, the later roofs were covered in kiln-fired tiles. The structure was destroyed by fire, and two charcoal samples (Beta-48930 and BM-2876) were obtained from burnt timbers sealed under the collapse of a tiled roof (905 and 914). It is noteworthy to record that this structure is the earliest encountered in which tiles were used, moreover the use of tile appears to pre-date that of brick in the ASW2 sequence. The debris was then sealed under levelling/occupation floor 880, and sample Beta-48931 was recovered from a burnt post in a posthole of 12 cm diameter (901) cut into 880. The features of I5 were sealed by levelling/occupation floor 837 and then by 834. Sample Beta-38932 was recovered from the latter. Floor 834 was then sealed by 752 and levelling/occupation floor 729/767/788. Inscribed sherds sf 16472 and 16454 were recovered from contexts 729 and 788, respectively. Samples Beta-48934 and 48933 were recovered from the basal fills of post slots (contexts 728 and 812) cut into 729/767 during structural phase I8.

During period I the settlement increased in size by 60 percent to reach an extent of over 60 hectares, and it also appears that during this period a roughly cardinally orientated rampart and ditch were constructed around the settlement, enclosing an area of some 100 hectares (Coningham 1993). The presence of a fine grey ware within the ceramic assemblage, probably imported, is noteworthy. The fabric and shapes suggest that it may be ancestral to Rouletted ware. The faunal record shows an increasing number of finds of sea shells, including *Lamellaria*, *oliva*, *strombus* or conch and *Turbinella* or chank. Finds of *Lissemys punctata granosa*, or the peninsular mud or flap-shell turtle, and the bones of monitor lizards suggest an expansion in the habitats of water-dwelling fauna. It is also from this level that the earliest evidence for *Cocos nucifera* or coconut fibre was identified, correlating with evidence of a similar date from Arikamedu (Kajale 1991: 177).

Structural period I correlates well with Deraniyagala's fifth period, V, the Lower Early Historic, with fossil indices of Rouletted ware and a very fine black slipped pottery (Deraniyagala 1990b: 256-7). Grey ware was found throughout, while Rouletted ware was found in small quantities in I5 and I4 but increased through I7 and I8. One sherd of Northern Black Polished Ware was tentatively identified in phase I6. Sherds bearing Brahmi inscriptions were

encountered at ASW2 during this phase: one from I1, one from I2, three from I3, one bone stylus from I4, two from I5, one from I6 and one from I8. The earliest coins were recorded from this structural period: one from I5 (sf 16341) and the other four from the final phase, I8 (sf 16273, 15800, 15802 and 15801). While sf 16341 is impossible to categorize on account of its very corroded state, sfs 16273 and 15802 are clearly punch-marked coins, the latter marked with a clear triple caitya symbol. This particular variant, of a single and triple arched variety, is absent from Codrington's catalogue (Codrington 1924), although the triple hill or caitya bearing a crescent is a well-known variant of Gangetic silver punch-marked and cast copper coins (Allchin and Allchin 1982: 325) and of Sri Lankan silver punch-marked coins (Parker 1909: 471). It is interesting to note that the latter was recovered from the fill of pit 751 along with a possible elephant and swastika coin (sf 15800) and a tree and swastika or caitya coin (sf 15801). A series of seven radiocarbon dates suggest a date of between c. mid-fourth century cal. BC and the last quarter of the third century cal. BC.

6.5 Structural period H

As structural period I takes the sequence from 360 to 190 BC and structural periods H and G take it from 200 BC to AD 130, we are now straddling the period during which Emperor Asoka ruled in Pataliputra and his son, Mahinda, is traditionally held to have converted Sri Lanka to Buddhism.

H is a particularly short structural phase and represents a structural anomaly in our sequence. Levelling/occupation floor 729/767 was sealed by 744/670 and a series of shallow troughs cut into the subsoil filled with wood, burned and then refilled. All of the charcoal samples (Beta-48937, 48936 and 48935; BM-2827) were recovered from the basal fills of these features (692, 718, 721 and 735). Considering their short exposure and high concentration of special finds, including Brahmi sealing (sf 10249) from fill 692, we were at first tempted to identify them as cremation sites; however it is more likely that they represent a specialized industrial structure. Structural period H yielded sherds of Rouletted ware and grey ware and one sherd of Hellenistic pottery, and, in addition, a 3.2 cm diameter clay sealing with an early Brahmi inscription was recovered from burning trough fill 692. Its inscription reads *tisa puta magaha parumaka* – 'Maga the chieftain (Parumaka), son of Tisa' – and shows no trace of the major changes of letter form which begin to appear in Sri Lanka from the first century AD. A person with the same name and title donated a cave to the Buddhist *Sangha* at the nearby monastic complex of Mihintale (Paranavitana 1970: 2). The *Mahavamsa* tells us that the construction of the monastery and of these caves at Mihintale went on throughout the second half of the third century BC and into the second century BC (Coningham 1995a). To find the donation of a cave by a titled chieftain whose seal was found in the nearby

city seems entirely plausible. Five sherds with Brahmi inscriptions were found in period H. The absence of inscribed sherds in succeeding periods, combined with the finds of ivory and bone book-covers in structural period G, suggests that the writing medium had altered from pottery to organic substances. Carbon samples recovered from two postulated subdivisions suggest a date of between c. the last and first quarters of the third century cal. BC.

6.6 Structural period G

Occupation resumes with five superimposed phases of structures during structural period G, utilizing limestone slabs and brick for the first time in the sequence. 744/670 was sealed by 663 and then by levelling/occupation floor 615. Sample Beta-48938 from G2 was recovered from the latter context. The structures of G2 were then sealed by 493, which was in turn sealed by levelling/occupation floor 470. Sample Beta-48939 was recovered from a G4 foundation (632) constructed on 470. Floor 470 was sealed by levelling/occupation floor 390, on which were constructed the structures of G5. This well-preserved structure consisted of a paved courtyard covering 16 square metres with three large ceramic vessels sunk into it, surrounded on the south and east by a range of tiled, white-washed and plastered wattle and daub structures. A brick-paved lane, running north-south, was identified defining the complex's western edge, perhaps indicating that the city was divided into cardinal oriented grids. This structure was destroyed by fire, and G5's charcoal sample (BM-2781) was recovered from a post in a posthole of 0.15 m diameter (340) in the building sealed by the collapse of the walls and roof. The results of the 1994 auger survey suggested that the city reached its maximum extent of some 70 hectares during this period. Structural periods K, J, I, H and G were then sealed by the construction of a monumental pillared hall (364) during structural period F.

Structural period G appears to begin Bandaranayake's Early Anuradhapura Architectural Period, which lasts until c. AD 500 (Bandaranayake 1974: 21). Period G, representing the younger portion of Carswell and Prickett's Early Historic Period (200 BC–AD 200) (Carswell and Prickett 1984: 57) and straddling Deraniyagala's Upper Early Historic Period VII (AD 100–300) and Mid-Early Historic Period VI (250 BC–AD 100) (Deraniyagala 1990b: 257–8), appears to have clear evidence of Indian Ocean trade through the presence of influences and imports. Characteristic sherds of Arikamedu pottery type 10, stamped with impressions of birds and fish, were found in phases G2, G3, G4 and G5. This pottery, first identified at Arikamedu (Wheeler 1946; Casal 1949), has been discovered at three Sri Lankan sites, two within the metropolis of Anuradhapura – the Citadel (Deraniyagala 1986: 41; Coningham 1991: 62) and the monastic complex of Jetavanaramaya (Ratnayake 1984: 62) – and the third from the Jaffna Peninsula, having been identified by the first author in Kantarodai pottery

collections. A single sherd of this ceramic has recently been found in Bali, widening its distribution to Southeast Asia (Ardika and Bellwood 1991: 224). Interpreting it as evidence of Greco-Roman trade, Wheeler dated this pottery type to AD 50, but some scholars have criticized this as being too late (Begley 1983: 314), a point now confirmed by the ASW2 sequence. The distribution of 'Hellenistic'-type pottery sherds conforms to the same distribution, and sherds with similar forms have also been identified in Sri Lanka at Mantai (Carswell and Prickett 1984: 62) and Anuradhapura (Bouzek and Deraniyagala 1985: 595; Deraniyagala 1986: 47; Coningham 1991: 173). A fragment of mirror (sf 15086) recovered from stratigraphic phase LXX appears to confirm such contact, as Leshnik has dated such objects to the centuries bracketing the turn of the era (Leshnik 1974: 186). This is further stressed by the presence of an ivory mirror-stand (sf 10196) and two sherds of a moulded vessel of Eastern Mediterranean glass with wheel-cut grooves (sf 5306 and 6281). The latter have been dated to between the first century BC and the first century AD. The presence of further evidence of Indian Ocean trade in the form of four small sherds with turquoise glaze (sf 8590, 2378, 6923 and 7091) of Western Asian origin in the final phases of structural period G presented something of a chronological problem as they were first identified as Sassanian Islamic wares. However, these four, weighing a total of 8.4 gm, are now thought to represent possible Parthian wares, thus conforming with the allocated phase dates rather than being intrusive. Indeed, the presence of similar sherds at Sirkap, Taxila, in the first centuries AD (Marshall 1951: 406-408) may confirm our suspicions. As noted earlier (Coningham and Allchin 1995), Codrington's coin sequence appears to be generally borne out by the data from ASW2. The first examples of Lakshmi plaques (sf 7033) are found in phase G3, as is an almost unique coin within Sri Lanka, a caitya and fish coin (sf 6943), in the next phase, G4. The latter coin is based upon a Pandyan series issued as late as the first quarter of the second century BC. The *terminus post quem* is offered by the presence of two maneless lion coins (sf 6747 and 6772) which were recovered from the final phase of occupation. Present also in the foundations of the succeeding period F, they have been allocated a date in the early centuries of the first millennium AD. Three carbon samples from phases G2, G3 and G5 suggest that period G lasted from around the first quarter of the third century cal. BC to the latter half of the first century cal. AD.

6.7 Structural period F

The pillared hall of period F appears to relate to Mantai's Intermediate Period (AD 250-750) (Carswell and Prickett 1984: 57) and Deraniyagala's Middle Historic Period VIII (AD 300-1250) (Deraniyagala 1990b: 259). As noted above, the identification of two maneless lion coins (sf 6747 and 6772) in the final phase of the previous period of occupation, G, suggests

a construction date within the early centuries of the first millennium AD. A further example (sf 2918) was recovered from the votive foundation deposits of the structure itself, together with nine Lakshmi plaques (sf 5457, 2956, 5652, 2911, 2967, 6057, 6063, 2721 and 2406), six punch-marked coins (sf 6015, 2804, 2803, 2829, 1714 and 1697), one tree and swastika coin (sf 2846), and two Late Roman Imperial Third Brasses (sf 677 and 221). The latter, one of which was minted in Antioch (sf 221), can be dated to the third and fourth centuries AD. Two earthenware vessels recovered from the foundations are almost identical in form and fabric to Jetavana type 10f, which has been dated to the third century AD (Ratnayake 1984: 110). Our postulated date of c. AD 300-600 appears to be corroborated by the determination of a carbon sample, Beta-19624, from the foundations of another pillared hall adjacent to the Citadel's APG sondage (Deraniyagala 1990b: 269). This sample calibrates to between AD cal. 340 and 540 at a confidence level of 68 percent.

6.8 Structural periods E, D, C and B

Owing to the disturbed nature of these structural periods representing the late, post-monumental occupation of the site, it has been decided to amalgamate them into a single macro-period. They correlate with Mantai's Early Mediaeval Period (AD 750-1000) (Carswell and Prickett 1984: 57) and with Deraniyagala's Middle Historic Period VIII (AD 300-1250) (Deraniyagala 1990b: 259). The accurate dating of periods which involve the spasmodic robbing of earlier deposits is difficult. Within individual contexts we have recovered ceramics ranging from early historic ceramics, Rouletted ware for example, to medieval glazed ceramics imported from East Asia or Western Asia. These structural periods cover the transition of the ASW2 locality from a monumental structure into a phase of temporary abandonment as the derelict pillared hall served as a quarry for new constructions. Following the silting up of the robber pits the site was once more occupied. The remains of the ashlar and brick structure in structural period C can be tentatively dated to the eighth century AD by its use of lime mortar (Paranavitana 1936: 78), although Bandaranayake suggests that the nearby Gedige, also constructed with lime mortar, can be dated to the tenth century AD (Bandaranayake 1974: 384). The recovery of a clay sealing beneath the collapsed wall also appears to confirm this more recent date. The seal depicts a flowering plant in a pot flanked on either side by lamp-stands. Paranavitana has suggested that such objects flanked by lamps can be broadly dated to between the tenth and fourteenth centuries AD (Paranavitana 1936: 9).

The large number of imported Western Asian glazed ceramics have further allowed us to attribute a date to these deposits with more precision. Sherds of Abbasid lustre-painted glazed wares, 'imitation' lustre wares and white tin-glazed wares suggest dates of the ninth and tenth centuries AD. Western Asian lead-glazed wares

offer a slightly wider range – between the ninth and thirteenth centuries AD – as do examples of buff ware which date to between the fifth and ninth centuries AD. It is noteworthy that there are no examples of middle to late twelfth-century Western Asian glazed ceramics such as tin-glazed frit-bodied wares or sgraffiato designs. A similar pattern is offered by the East Asian glazed ceramics. Sherds of late Tang-period Changsha painted stonewares, Xing and Ding wares, and Yue green wares all conform to dates of the ninth to tenth centuries AD. A slightly wider range is offered by the sherds of coarse grey stoneware which date to between the eighth and twelfth centuries AD. In the light of this close contact with the Western Asiatic world, it is interesting to note finds of glass with a similar provenance and date of between the ninth and tenth centuries AD. These consist of a single glass kohl stick (sf 214) with close affinities to ones from Fustat in Egypt, as well as 22 glass sherds of Egyptian, one of Syrian and two of Persian provenance. Analogies may be made between objects found at other Sri Lankan sites. A rim sherd of a wide-mouthed vessel with an appliqué *trisula* (Shiva's trident) symbol (sf 248) was also recovered from the last of these medieval structural phases. Similar decorated vessels have been recovered from twelfth- and thirteenth-century levels during excavations at the Alahana Parivena, or 'crematory monastery', at Polonnaruwa (Prematilleke 1982a: 14). According to Prematilleke, the excavator, such motifs vary between *vajra*, *trisula*, swastika, iguana, cowrie and frog (Prematilleke 1982b: 30; 1985: 60). There is also a wide range of coins from this period, from the lead-copper alloy elephant and swastika and tree and swastika coins (pre-AD 200) to the Pandyan fish and bull coins (c. AD 1100). The *terminus post quem* is given by two copper alloy Pandyan bull and fish coins (sf 242 and 2553) (Codrington 1924: 87) and the gold Lashkmi-type coin (sf 6373) dating to the late ninth or tenth century AD (ibid.: 54), all recovered from stratigraphic phase XCV. This period has thus been dated to between the seventh and twelfth centuries AD.

6.9 Structural period A

Dating structural period A is somewhat easier than its predecessor, although the mixed content of finds highlights the generally disturbed nature of the upper levels of the Citadel: Rouletted ware and Western and East Asian pottery are found in the same contexts as modern bone china. However the recovery of a George VI coin of 1943, an umbrella and an enamelled metal tax sign dated 1918 allows us to reach a general date of the first half of the twentieth century!

6.10 Conclusion

We have therefore at trench ASW2 a sequence which stretches from the ninth century BC to the thirteenth century AD: that is, from a small Iron Age settlement, through its growth into an imperial metropolis, to its subsequent decline and abandonment. Our sequence, which covers some 21 centuries, also affects the

reliability of a number of other chronologies. One of the most important of these involves the age and spread of the Brahmi script within South Asia. As already mentioned in Chapter 1, the earliest example of early Brahmi from trench ASW2 is from structural phase J4, which dates to the beginning of the fourth century BC. This evidence supports that retrieved by Deraniyagala from many of the test pits sunk into the city site (Deraniyagala 1990a). This evidence, both from ASW2 and from Deraniyagala's excavations, is, of course, in direct conflict with current academic belief regarding the origins of the early Brahmi script. As most scholars still hold that Emperor Asoka's pillar and rock inscriptions are the earliest examples of this script, it means that the evidence from Anuradhapura is viewed with some scepticism. Some scholars, Falk and von Hinüber for example (von Hinüber 1990), believe that Brahmi can only have reached Sri Lanka during the reign of Asoka as a result of the Third Buddhist Council and the conversion of the island to Buddhism. However a number of scholars have argued that, as Brahmi was fully developed at the time of its appearance, it must have been in use for several centuries prior to Asoka, although there is no evidence of such a stage (Bühler 1904; Winternitz 1927: 31; Dani 1963: 31). Evidently, the latter view is supported by the evidence from Anuradhapura. In an attempt to investigate some of the possible mechanisms involved we have attempted to formulate a model for the early spread of Brahmi script to Sri Lanka (Coningham *et al.* 1996). We firmly believe that other examples will be found with dates as early, if not earlier, than dates elsewhere in the subcontinent.

Another problematic chronology involves the numismatic evidence. It had been expected that the earliest coinage would occur only after the opening of trade and political networks with the Mauryans in the north, and that it would consist for the most part of silver punch-marked coins. It was with some surprise that we noted that such coins are only found in latter contexts, from structural phase G5 onwards. Deraniyagala's much larger sample from the various test pits within the Citadel have also failed to demonstrate that punch-marked coins were the oldest in Sri Lanka. Our earliest coins, marked with a single caitya, date to the very end of the third century BC.

A further chronological readjustment is that which involves the date of the island's earliest urban form. The evidence from Anuradhapura now suggests that by the middle of the fourth century BC there was a sizeable fortification enclosing an area of some 100 hectares (Coningham 1993). Such a presence clearly pre-dates the southernmost expansions of the Mauryan empire under Asoka, suggesting that the urbanization of peninsular India and Sri Lanka was not necessarily a northern phenomenon. Although there is a summary in Table 1, the full extent of the revisions of these and other chronologies is discussed in further depth in Chapter 7 below and in Volume II, *Anuradhapura: The Artefacts*.

Dating the Sequence

Our chronology also represents a pioneering use of OxCal, as this is its first such application in South Asian archaeology, and it has demonstrated the great potential of integrating radiocarbon determinations with stratigraphic information to obtain dates. In a sequence such as that at ASW2, with a large number of radiocarbon determinations from short-lived samples placed within a well-defined stratigraphic sequence, this approach has been shown to constrain calibrated dates to within much narrower date ranges and thus exploit the full potential of the radiocarbon determinations. The

success of this study has prompted a similar re-evaluation of radiocarbon sequences and their stratigraphic relationships by other workers in the area (e.g. Deraniyagala and Abeyaratne, forthcoming). Clearly, significant advances in the resolution of the chronology of many similar archaeological sequences in South Asia can be made using such Bayesian approaches to the re-evaluation of existing radiocarbon determinations and to inform radiocarbon sampling strategies on future excavations.

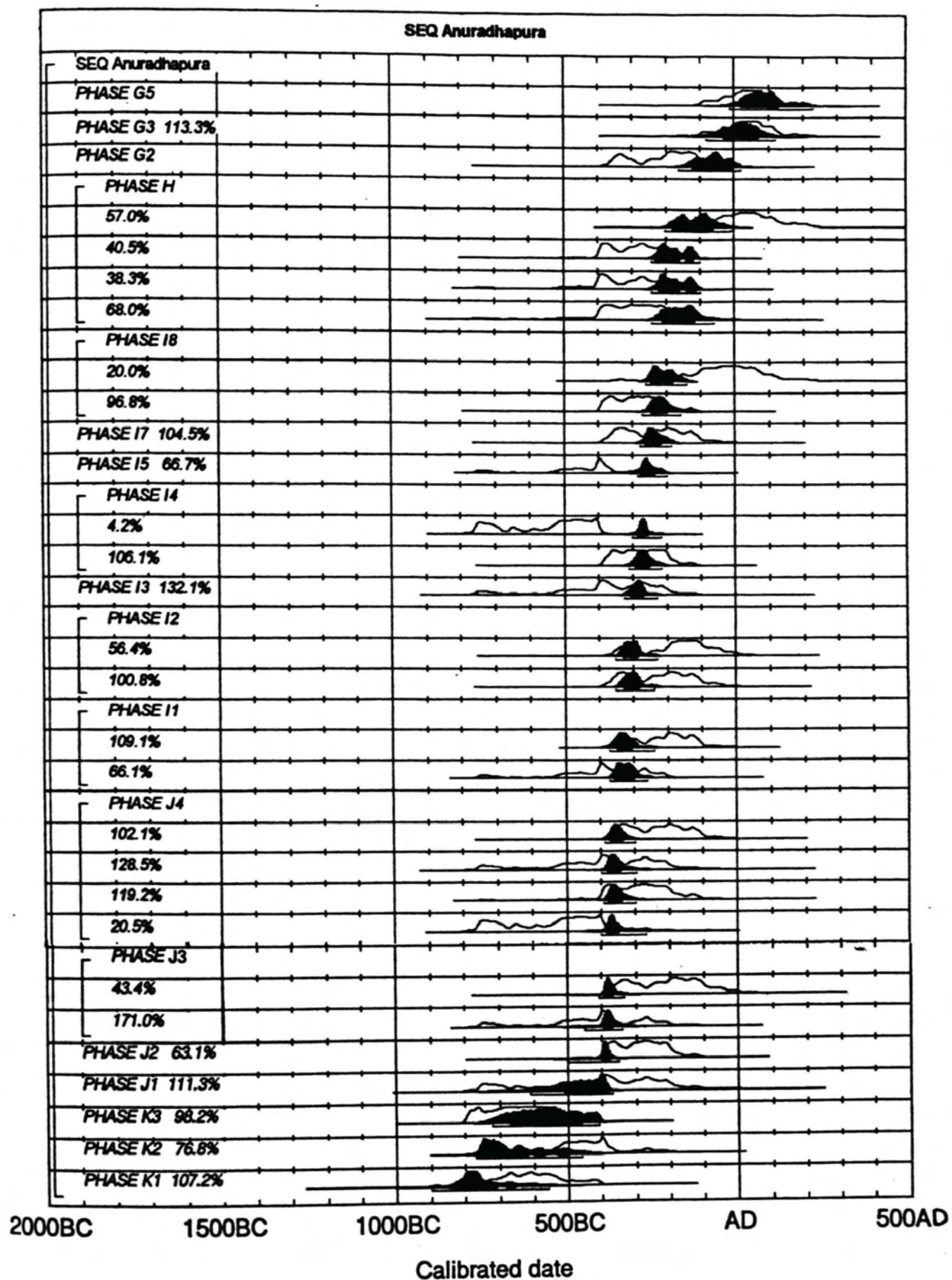


Fig. 119: Phased and calibrated dates from ASW2

CHAPTER 7

CONCLUSIONS

Robin Coningham

THERE is little evidence for an autochthonous emergence of urban forms in the island of Sri Lanka, although the evidence of habitation prior to the Iron Age and the early historic period is very well attested: indeed, over 75 prehistoric sites have been identified (Deraniyagala 1992). The wide distribution of such sites within the island suggests that most of the island's ecological zones were being exploited (Fig. 120), while the wide spread of dates suggests that this broad-based pattern of subsistence activities was established prior to the Holocene and continued in some areas up to relatively recent times. A number of these sites are shell middens, situated in the coastal regions and representing open-air nodes of marine resource exploitation. The mesolithic habitation site of Henagahapugala, located on the southern coast close to Ambalantota, was sited on a shell midden (ibid.: 701) and has been dated to between 1400 and 1000 cal. BC at 68 percent confidence. A similar date, of between 1130 and 900 cal. BC at 68 percent confidence, was recovered from the shell midden site of Arnakallu (site 30) on the Puttalam lagoon on the island's northwest coast (ibid.: 702). A further open-air camping site was also identified on the northwest coast, close to Mantai. Here in trench D, geometric microliths were recovered in association with a chank, inter-tidal molluscs and the remains of a dugong, dating to c. 1800 cal. BC (ibid.: 303-4). This is not to suggest that such coastal sites were purely dependent on marine-derived subsistence; the site of Henagahapugala (site 57), for example, yielded lagoon-habitat and marine molluscs in association with a sambhur molar (ibid.: 612-13).

Inland, excavated and dated sites abound, again, as in the case of the coastal sites, almost entirely the result of the pioneering research undertaken by the Deraniyagalas, father and son. One of the best-preserved inland open-air sites is the habitation midden at Ballan-bandi Palassa (Deraniyagala 1963; Deraniyagala 1992). Extending for over 15 m, the midden has been interpreted as a perennial base camp situated next to a small seasonal stream (ibid.: 307). The midden contained a rich faunal record, including the skeletal remains of some twelve human individuals, most in a flexed position, in addition to a wide range of species ranging from juvenile elephant and buffalo to aquatic snails, freshwater crabs and terrapins and tortoises (ibid.: 308). Ballan-bandi Palassa is an extremely recent site with a date of between 380 cal. BC and AD cal. 110, perhaps throwing some doubt on the sample. Additional sites of importance are the caves of

Batadomba-lena and Beli-lena Kitugala. The former site yielded evidence of occupation between c. 26,500 and 9500 cal. BC, with an associated faunal record which included mollusc, giant squirrel, porcupine and monkey (ibid.: 314), while the latter yielded giant squirrel, porcupine, flying squirrel, rodent, an unidentified bovid and a number of large concentrations of molluscan shells (ibid.: 315-16). In addition, a well-preserved floral record was identified at the latter site and included wild banana, wild breadfruit and nut shells belonging to *Elaeocarpus subvillosus* (ibid.). Structural evidence was also forthcoming from Beli-lena Kitugala in the form of a single course of rubble wall and a number of hearths with a diameter of 0.5-1 m (ibid.: 317). Evidence of occupation at Anuradhapura has also been found in the basal levels from at least three of the sondages excavated within the Citadel (Deraniyagala 1992: 700, 709). The large extent of this spread of evidence suggests that there was either a dense population occupying the area as early as the fourth millennium BC or, more likely, that the high ridge represented by the Citadel above the surrounding flood-prone land was an excellent seasonal camping area. The wide distribution of these later prehistoric sites within the island in combination with the large number of skeletal remains associated with them (Deraniyagala 1985: 19) - three sites producing the remains of over 53 individuals between them - suggests that there was a substantial population of hunter-gatherers on the island exploiting most of its ecological zones. The subsistence base varied from zone to zone but is very broad-spectrum. The faunal record ranged from large and medium mammals to birds, fish, reptiles and molluscs, whilst the presence of grinding stones and finds of carbonized breadfruit and banana suggest a gathering element which may be less archaeologically visible (ibid.: 18). That there were contacts between these different regions is suggested by evidence of the movement of objects between ecozones. The marine shell recovered from the inland cave site of Beli-lena Kitugala (Deraniyagala 1992: 317), the ray spine and marine shell at Batadomba-lena (ibid.: 314), and the cowrie and marine mollusc from Kabara-galge cave (ibid.: 313) must have all been brought to these sites from the coast over 50 km away.

It is tempting to try and flesh out these rather bare records with subsistence patterns recorded for the Veddas - historically recorded hunter-gatherer groups in Sri Lanka. In 1881, 2228 of these individuals recorded in the Government census were organized in

six exogamous, matrilineal, territorial clans (Sarasin and Sarasin 1892: 79–80), each with its own caves, forests and streams (Seligman and Seligman 1911: 33), with specific ponds and trees belonging to individual families (ibid.: 101). Typically, individual communities consisted of a single family or groups of two or three families, with an estimated density of some 0.4 individuals per square kilometre (Deraniyagala 1992: 388). During the rains of the northeast monsoon these family groups shared caves within their territory, following the larger game into the higher country; during the droughts of the southwest monsoon they scattered among the drying water holes and river beds (ibid.). Such analogies may not be so far fetched, as Kennedy has suggested that, despite 'miscegenation with Sinhalese, Tamil, Malay and other peoples who came to Sri Lanka' (Kennedy *et al.* 1986: 135), continuities between the Veddas, recent aboriginal groups in Sri Lanka, and the island's Pleistocene hominids are clear, stating (Kennedy 1965: 207) that:

The Balangoda skeletal series from Ballan-bandi Palassa constitutes a unique phenotypic pattern present in Ceylon... The phenotypic pattern most closely resembling that of the Balangodese is that of the Veddas of Ceylon... It would seem therefore that both the Balangodese and the Veddas are biologically united through their possession in the past of a common gene pool.

Kennedy's model suggests that the original aboriginal population of the island must have adapted, integrated and survived. Certainly, by the Kandyan period, Veddas were reported as suppliers of forest produce to agricultural populations (Knox 1911: 88). Whilst such continuities may not be certain, we may conclude that the general spread of chronometric dates from these sites suggests that a substantial population, practising a pattern of broad-based subsistence activities and exploiting most of the ecological zones, was established in the island even before the Holocene. For further details please see Deraniyagala's magnum opus, *The Prehistory of Sri Lanka* (Deraniyagala 1992).

Unlike the situation in peninsular India, there is no apparent transition to complex Iron Age urban societies within Sri Lanka through the interim stages illustrated by the Chalcolithic chiefdom of Inamgaon (Dhavalikar *et al.* 1988), nor indeed is there confirmed presence of a Neolithic stage in the island either. This discontinuity is illustrated at a number of sites where levels affiliated with the Iron Age sit directly above those containing microlithic tools, although the question of coevality must not be overlooked. A number of scholars have argued that this abrupt transition was produced by an influx of new population, as illustrated by comments by two anthropologists who carried out a study of human skeletal remains from the Iron Age site of Pomparippu (Lukacs and Kennedy 1981: 106):

The study of the biological anthropology of the

ancient people of Pomparippu indicates that Iron Age man in this part of Sri Lanka possessed a number of physical features which appear in frequencies and configurations which are not characteristic in any obvious way of the biological profiles of earlier prehistoric populations on the island.

Such skeletally based hypotheses of diffusion have been paralleled by artefactually based diffusions. Seneviratne (1984: 283) has suggested, for example, that:

It is fairly certain that the burial culture of north-west Sri Lanka received its impetus from the urn/cairn burial complex in the Viagai-Tambapanni plains ... it is also quite likely that the cist burial group in north-central Sri Lanka may have received its impetus from the primary cist burial complex extending from Pudukkottai (Tamilnadu) to the Chittor area (in southern Andhra Pradesh).

Although Deraniyagala has suggested that 'The supersession of stone tool technology with that of iron appears to have been a rapid process, thereby leaving few discernible vestiges of this transition in the archaeological record' (1992: 709), we may prefer to view this process as being longer. Certainly the dates would favour such an approach, as the earliest Iron Age occupation in the island, found at Anuradhapura, has been dated to the ninth century BC (ibid.), a date which may well overlap with that of the shell middens at Henagahapugala or Arnakallu, let alone the rather suspect date of between 380 cal. BC and AD cal. 110 at 68 percent confidence from Ballan-bandi Palassa (Batt, pers. comm.). Evidence of an overlap or some stronger extent of interaction between resident populations and the (hypothesized) newly arrived population is perhaps indicated by the presence of worked lithic tool fragments in the urn burials at Pomparippu (Begley 1981: 83). Indeed, some scholars have suggested that such resident populations played a major role in the Iron Age developments which followed: 'It can be assumed that certain Mesolithic clan chieftains took upon themselves the term *parumaka* [chief] (which suited the clan organization of their band-level society)' (Seneviratne 1992: 115). This is not to suppose that there was not a series of more or less continuous population movements. As Deraniyagala suggests (1992: 469), 'It is thus clear that Prehistoric human traffic to and from India and Lanka would have been commonplace, leading to complex patterns of miscegenation between groups'.

One of the more puzzling patterns of the distribution of the earliest Iron Age occupation within the island is that two of the earliest known sites are situated inland, well away from the coast. As mentioned above, the earliest actual evidence is represented by the ninth-century BC levels at Anuradhapura in the north-central dry lowlands (ibid.: 709), while the megalithic cemetery

at Ibankatuva, closer to the central massif, dates to between 540 and 400 cal. BC at 68 percent confidence (Batt, pers. comm.). Conversely, the northwest coastal port site of Mantai does not appear to have any evidence of occupation before the second century BC (Carswell and Prickett 1984: 62), while the site of Kantarodai in the Jaffna Peninsula does not pre-date the fifth century BC (Deraniyagala 1992: 356). This contrast apart, Iron Age communities within Sri Lanka are represented by two main data sets: settlement sites and megalithic cemeteries.

The former data set consists of only two sites, Anuradhapura and Kantarodai. Although a survey of the Jaffna Peninsula reported 18 suspected early historic or megalithic sites (Ragupathy 1987), until excavations have been carried out it is unclear to which of these two periods they belong, so they have not been included in this section. The former site has already been discussed at some length in this volume and elsewhere, but the archaeology of Kantarodai is virtually unknown. It was excavated by a team from the University of Pennsylvania in 1970, but no detailed report on the sequence has ever been published. Kantarodai is a 2 metre high mound, covering almost 25 hectares, and is situated in the centre of the Jaffna Peninsula close to a large tank which covers almost 40 acres (*ibid.*: 57–62). Its main occupation appears to have been between the sixth century cal. BC and the first century cal. AD (Batt, pers. comm.), but one rogue sample from the middle of trench B gave a date of between 1500 and 300 cal. BC. Despite a brief preliminary report (Begley 1967), little is known of the structural sequence or the full extent of the site. It is hoped that the report for this important site will be completed and published by the University of Pennsylvania before the beginning of the millennium. Our only source of early Iron Age spatial and structural data is therefore Anuradhapura. As already detailed in Chapter 5 above, the earliest Iron Age occupation at Anuradhapura Salgaha Watta 2 (ASW2) can be dated to c. 840–460 cal. BC, which correlates well with the dates published by Deraniyagala for other parts of the site (Deraniyagala 1992). The habitation site covered some 18 hectares and consisted of a number of insubstantial circular structures with diameters of less than 5 m. Finds of black-and-red ware with non-scriptural graffiti, cattle and iron technology suggest a close affinity with the contemporary communities in peninsular India.

The second data set, megalithic cemetery sites, provides a great variety in terms of form and date – associated together only by archaeological terminology! In 1984 Seneviratne recorded 19 such sites. He reported that the sites of Tekkam, Pomparippu and Karamban Kulam contained urn burials; the sites of Tammenna-godella, Gurugal-hinna, Vadigawewa, Kok-ebe, Diwul Wewa, Rabewa, Machchagama, Kadiraveli, Ibbankatuwa, Pin-Wewa, Gal-Atara, Mamaduwa and Aluthombuwa contained cist burials; Makevita a pit burial; and Karainagar and Anaikottai extended burials (Seneviratne 1984). A concentrated

survey in the Jaffna Peninsula conducted by the University of Jaffna has added to this number, with reports of further cist burials at Vallipuram and urn burials at Anaikoddai (Ragupathy 1987). These sites vary greatly in extent, or rather content: Pomparippu, for example, contains an estimated 8000 urn burials with the remains of an estimated 10,000 to 12,000 individuals (Begley 1981), while the excavations at Karainagar yielded only one extended burial (Seneviratne 1984: 240). They also appear to vary greatly in date. The megalithic cemetery at Ibbankatuwa (Pl. Xa) has been dated to between 540 and 400 cal. BC at 68 percent confidence, while finds of grooved tiles, Rouletted ware and a Lakshmi plaque coin (Ragupathy 1987: 119–20), associated with the Anaikottai burial, suggest dates as late as the first and second centuries BC. It is highly probable that such cemetery sites mark nearby settlements, as is supported by recent survey work in southern India by Rajan (1994) and by an apparent correlation between the location of such cemeteries and early irrigation works (Seneviratne 1984). However, rapid jungle growth, combined with the temporary nature of domestic building materials, has caused the associated habitation sites to be almost invisible, archaeologically. As to date only the small excavations at Pomparippu (Begley 1981), Anaikottai and Cattirantai (Ragupathy 1987) have been published, little more can be said about their general dating, sequence or social ranking, apart from the fact that some were still undoubtedly in use in the early historic period. Furthermore, we can confirm that there can be little doubt that they form part of the 'megalithic' tradition or techno-complex of the peninsular Iron Age of India. Clearly the material culture from structural period K appears to support the above hypothesis, although different styles of burial groups may, of course, be dictated by access to building materials rather than indicating specific population or cultural groups. Seneviratne has suggested that this period consisted of a wide distribution of early Iron Age communities which practised swidden and plough cultivation based on small tanks in combination with pastoral activity (Seneviratne 1992: 101). Furthermore, he has suggested that there would have been little evidence of social differentiation, with limited craft production in a household economy, located in clan-based village settlements under the political authority of a chieftaindom (*ibid.*: 101). It is interesting to note that the artefactual evidence from Anuradhapura appears to support parts of this model. The levels of the various sondages show little evidence of social differentiation, as indicated by the lack of ornaments, and all occupied loci appear to have evidence of iron-working activity, suggesting a local level of self-sufficiency (Coningham 1997). It is also interesting to note that there appears to be a strong continuity in terms of subsistence pattern between faunal remains recovered from the later prehistoric sites and those from the earliest occupation at ASW2, suggesting that the early Iron Age of the island was not a cipher of that of the mainland. The egalitarian nature of

Seneviratne's model also appears to be supported by the absence of large communally built structures, suggesting that leaders lacked the ability to mobilize large numbers of individuals. The megalithic tombs were all small and may represent the burial plots of single extended families. If one assumes that a tomb would require no more than 5000 labour-hours to build (Renfrew and Bahn 1991: 180), they are dwarfed by the first rampart at Anuradhapura, which required an estimated 85,000 labour-hours (Coningham 1993: 121).

The first archaeological indicators of the presence of contact with the urbanized techno-complex in the north of the subcontinent – sherds with early Brahmi scriptural graffiti – occur in the ASW2 sequence within a century and a half of the first occupation of the site during structural period J (Coningham *et al.* 1996). These elements have led a number of archaeologists to suggest that they represent evidence of the tradition of the North Indian colonization of the island. For example, Deraniyagala (1990a: 160) states:

It is hypothesized that the coevality in the first occurrence of Brahmi and these two (northern Indian) ceramic traits is linked in some manner to an extraneous cultural impulse that reached Sri Lanka during this period. It is hence tempting to see a connection between this archaeological evidence and the legend of 'Vijaya and his followers' as enunciated in the Mahavamsa, an event attributed to the 6th century BC.

Deraniyagala's excavations have also yielded a sherd with the Prakrit inscription *biya Anuradha* from a context in sondage ASW1 (Deraniyagala 1992: 746). Deraniyagala states of this artefact (*ibid.*: 747):

It is most significant that the name Anuradha occurs on one of the sherds. The founder of Anuradhapura is said to have been a minister of Vijaya by the name of Anuradha; it was supposedly founded under the constellation termed Anuradha; and the 'Anuradhas' had lived there. Pandukabhaya's maternal great-uncle who resided in Anuradhapura was also called Anuradha. The present evidence does indeed vouch for the core of historical fact that underlies its statements relating to the 'Vijaya' period at over 500 BC.

Whilst archaeological examples of the danger of linking material culture and epic traditions abound (Finley 1964: 1968), it is clear that the language in which these scriptural graffiti are written is a Prakrit or Middle Indo-European language (Coningham *et al.* 1996: 92). This language appears to be the ancestor of modern Sinhalese and is part of the same language family as most of the languages of the northern half of the subcontinent, in direct contrast to the Dravidian language family of peninsular India. These elements appear when the settlement at Anuradhapura expanded by c. 25 percent to cover over 26 hectares. During this

period finds of craft-working waste and finished products from sources over 60 km away illustrate the growing system of intra-island trade and the position of Anuradhapura as a manufacturing and centralizing locus. Further reflection of this network may be identified through the finds of two imported carnelian beads (sf 17281 and 17474) and three sherds with scriptural graffiti in early Brahmi script (sf 17425, 17308 and 17332). As these inscriptions represent names in their dative and genitive cases, it is assumed that they refer to the owner of the pot and whatever objects were contained or transported in it (*ibid.*). This assumption is strengthened by the fact that both Buhler and Dani hypothesized that Brahmi was a script borrowed from the Near East, first utilized and adapted by traders and merchants within South Asia (Buhler 1904: 396; Dani 1963: 24). The distribution of a substantial number of these inscriptions within Anuradhapura, as represented by finds from the sondages and trenches, suggests that it is possible that a number of people living within the settlement could read and write the script. Despite the evidence that there may have been an exposure to a new material culture and, perhaps, a new population and linguistic element, the basic pattern of the preceding period was otherwise unchanged.

It is only during structural period I that the expanding settlement reached the status of an Early Historic city. The construction of the rampart and ditch, as detailed in Chapter 3 above, the dividing of the settlement into a grid, the construction of rectangular structures and compounds, the construction of large irrigation tanks, and the expanding evidence of long-distance trade as represented by carnelian imports from western India (sf 17283, 10500, 10568, 10569, 10573 and 16289) and two lapis lazuli beads from Afghanistan (sf 10629 and 16821), makes Anuradhapura indistinguishable from the mainland cities. That this occurred centuries after the first initial exposure to North Indian elements is highly significant and suggests that the emergence of complex societies within the island was not a colonial Mauryan imposition. Indeed, a number of scholars have argued that, as the dynamics of the original settlement and its domestic economy survived into the urbanized era along with some of the original clan titles, such as 'Parumaka', this demonstrates the strength of the social system associated with it (Seneviratne 1992). However, this is clearly not an autochthonous genesis either. The demarcation of the city, its expansion of occupation by over 60 percent, combined with the increase in the number of early Brahmi inscriptions and the introduction of rectangular structures, suggest to some scholars that this may represent a further northern influx, citing references in the *Mahavamsa* to successive waves of colonizers (*Mvs.*vii.39–43). Deraniyagala appears to support the archaeological evidence of such an influx by stating (1992: 469) that:

A major intrusion into the (apparently) homogenous gene pool of the island (? and

Southern India) appears to have occurred with the dawn of the Protohistoric Iron Age at c. 1000–500 BC... It would seem that it was this intrusion that led to the present-day configurations of Lanka's population.

It must be noted, however, that this increase in the size of settlement may also have been due to internal developments, for example an increase in the carrying capacity of the region as previously demonstrated (Coningham 1995b: 65–7). Evidence for this development is unfortunately limited, but elements may still be discernible. During ASW2's structural period I, the shallow watering holes of structural periods K and J, cut only to the surface of the underlying gravels, were replaced by a deep well cut through the underlying Iron Age deposits and gravels and a further 2 m into the bedrock itself. It is possible to correlate this with a drop in the local water-table. The drop is corroborated by a change in the soil matrix from the humus-rich Reddish Brown Earth to a sterile grey soil and an increase in the presence of aquatic remains in the faunal record of the trench (see Volume II, Chapter 10: Faunal Remains). It is hypothesized that the former phenomenon was due to the construction of large tanks near the city for the irrigation of rice and the watering of increasing numbers of livestock and people. A very similar pattern of fluctuation has been reported in localized water-tables in Eastern Province since the Mahaweli irrigation project started restoring ancient tanks in the region (Sirisena, pers. comm.).

The emergence of Anuradhapura as a major urban form occurred when other cities of southern Asia were also emerging (Allchin 1989, 1990). Although it is possible, as argued by Allchin (1990), that a number were founded directly as a result of colonization, many were not, suggesting parallel urban development on a peninsula-wide scale. Elsewhere I have argued that attempts to identify specific prime movers, such as long-distance trade or subsistence developments (Coningham 1995b, 1993), for this development are deeply flawed as they all present a clear continuous development through the sequence. Once these elements are removed, we are left with the most obvious trait of all, the physical manifestation of the walled and planned city itself. It also represents the island's first monumental investment of communal action and may be attributed to a social mechanism newly resident at Anuradhapura, one which could mobilize vast numbers of people, and one which was being used throughout the subcontinent. The ramparts alone represent 86,317 labour-hours, or, if one assumes that it was built within the dry season when excess labour was available, it would have taken a workforce of 575 some 150 days. If we compare this investment with that required for the construction of a megalith, we see the magnitude of the development, as the latter structure could have been erected in the same time with a labour force of only 33 (Coningham 1994a). It is significant that the first evidence for the construction of large irrigation tanks, which uses the

same technology as rampart construction, also comes from this period. Surely this social mechanism, in the case of Sri Lanka, was the concept of kingship, an office from which a powerful leader could, with the necessary support and resources, mobilize and manifest the will of the people. The Sri Lankan concept of kingship does not appear to have been the divine one expected by Duncan's kingly reading, Higham's mandala, Tambiah's galactic polity or Thapar's divine kings (Duncan 1990; Higham 1989; Tambiah 1976; Thapar 1984), but a flexible and unstable one. The king, as described elsewhere (Coningham 1995a), appears to have been more an elected leader who could be easily removed. As Geiger states (1960: 117):

... the king was regarded less in the light of a ruling despot than that of the chief representative and leader of the people. Himself a Khatiya, he was the leader of the noble race. To him was committed the care of the priestly Brahmins, and to him was entrusted the welfare of the rest of his subjects.

In this respect the Sri Lankan concept of kingship appears to be close to that of the *Arthashastra*; Kautilya's king was an embodiment of all the constituent parts of the state but was never conceived as divine (Kangle 1963). Moreover, as I have argued, a clear paramount or high king of the island, ruling from Anuradhapura, only emerged with the assistance of the legitimized assistance of Buddhism (Coningham 1995a).

As mentioned above, it is suggested that the introduction of a social mechanism to the island in the fourth century cal. BC allowed the previous low threshold level of social mobilization, barely extending beyond that of kinship ties, to be exceeded as illustrated by the construction of major communal works (Coningham 1995b: 72). The monuments of the preceding period, megalithic tombs, were surpassed by the scale of the new irrigation works and city rampart at Anuradhapura (Coningham 1993: 307). We have rejected the suggestion that this shift was internally generated and, similarly, on the basis of the early dates, we can now also reject Allchin's suggestion that 'some of the major settlements of the south, no less than in Sri Lanka, may have been products of Mauryan imperial and administrative expansion' (Allchin 1989: 15). Abandoning such indigenous or diffusionist paradigms, it is possible to propose a further model which builds on internal developments but acknowledges the role of external contacts (Renfrew and Cherry 1986). Within this pattern one may perceive the emergence of a number of autonomous political centres in the northern part of South Asia at the beginning of the early historic period, the culmination of the steady development from the preceding Chalcolithic. Indeed, this is a stage reached through a more or less internal development of complexity which results in the emergence of a limited number of centres, each representing a local autonomous centre, *janapadas*. These multiple centres

then amalgamated, resulting in the creation of *mahajanapadas*, great territories, each typified as a major fortified city site standing at the centre of a hinterland possessing a hierarchy of smaller settlements and producing its own coinage (Fig. 121).

These early centres correspond with Renfrew's early state modules (ESMs) and conform to a common script, system of weights, religious belief system and political institutions (Renfrew 1986: 2). They do not exist in isolation and are strongly interlinked, through competition and emulation, as well as by possessing a ritual landscape modelled by a shared religious tradition. The strength of these links – warfare in the case of the Ganges valley – led to the steady absorption of the smaller ESMs by the larger ones, leaving first four, and then a single state, Magadha, by the fourth century BC. It is important to recognize that the interaction between these centres in the model, whether it is competition manifested in building monuments, warfare or symbolic entrainment, leads to an increased flow in the exchange of goods, causing them to share similar values and beliefs, and setting the scene for an amalgamation of the entire system into a state-level organization. This development is aided by external links with other areas, often in the form of exchange and trade of low-bulk, high-value goods and, more importantly, of ideas (Cherry 1986: 39–41). The similarities between the resultant Mauryan empire and that of the Achaemenids to the west have long struck archaeologists and art historians as being so close as to suggest substantial contact (Wheeler 1959). Whilst not arguing for a pattern of pure diffusionism, one might suggest that this trade, in combination with the exchange of ideas, led to the introduction of the social concept, or mechanization, of kingship, to the interaction of the region's ESMs, and thus by providing a new currency of competition allowed the *janapadas* to exceed their low thresholds for social mobilization. It is crucial to note too at this point that the island of Sri Lanka does not necessarily need to be perceived as being located off the tip of southern India and the recipient of material culture from more northerly, civilized areas (Coningham *et al.* 1996: 73). It may also be portrayed as the pivotal point of the major South Asian maritime routes, possessing a singularly central location, as demonstrated by Figure 122.

We may begin to understand the nature of this change by examining the various functional features associated with Sri Lanka's earlier evidence of small-scale communal mobilization, the megalithic tomb, and its similarities and differences with the later communal monuments of the island. Traditionally, the megalithic monuments of the peninsular Iron Age have been classified on two different bases, appearance and date. The first category is based upon form and is typified by the approach taken by Allchin and Allchin, who identified six groups: large urns in small pits; legged urns and sarcophagi in pits; pit circle graves; cist graves; rock-cut chambers; and standing stone alignments (Allchin and Allchin 1982: 331–3). The

second, chronological, category is typified by McIntosh's attempt to subdivide the monuments into four distinct developmental stages. Stage I represents the early Iron Age (1100–800 BC) and differs little from earlier Chalcolithic pit burials; Stage II, the early megalithic (800–550 BC), is mainly found in the Nagpur region and consists of burials at the centre of stone circles, covered by low mounds of soil and stones. A number of horse burials have been excavated, and in general there are more iron grave goods, daggers, spears, knives, axes, hoes and sickles than before. During Stage III, the megalithic (550–300 BC), cremations appear and there is a massive growth in the numbers of items deposited as well as in the provision of funerary architecture. Urn burials in pits appear for the first time in the south; during Stage IV (300–100 BC) urn burials completely replace the earlier forms of architecture (McIntosh 1985). The earliest interpretations of these monuments were limited by diffusionistic paradigms. Thus the early antiquarians interpreted their presence as evidence of the diffusion of druids or Scythians in particular (Fergusson 1872). While the links between European and South Asian megaliths have been severed, there are still many who believe that they represent the movements of people into the Deccan using a rather simplistic correlation between material culture, language and ethnic identity (Parsola 1995).

In line with theoretical developments elsewhere we may apply a number of more functional models to these monuments. Fleming proposed a model of the megalith as a 'tomb for the living' and suggested that it functioned as a monumental focus or centre-point for dispersed settlements (Fleming 1973: 187–9). Megaliths functioned as a stage on which leaders of kinship-based groups could supervise the rituals which accompanied changes in social interaction associated with death as a rite of passage. Furthermore, Fleming suggested that they acted as a territorial marker within the landscape, giving a sense of unity between the community's living and dead members. McIntosh further developed this theme, suggesting that the tombs acted as territorial markers, necessary to control competition between expanding groups for limited resources (McIntosh 1985: 481). The presence of a single non-scriptural graffito on thirteen vessels recovered from the megalithic tomb at Raigir in the Deccan, interpreted as a symbol of community deposited there (Coningham *et al.* 1996: 90), may provide evidence of such identities. Others have suggested that the focus of the megalithic tomb as representing the concept of the unity of a specific community in both life and death may have allowed funerary practices to mask inequalities within the living societies themselves (Shanks and Tilley 1982). This model suggests that the societies involved may well have been egalitarian, as suggested by the presence of high-ranking artefactual elements such as horses and iron swords, but that such differences were negated in the tombs by the mixing of burials together, perhaps suggesting that in the afterlife all members of the

community were the same. The associated funerary rites allowed a further inequality by enabling specialists to acquire surplus resources through ritual feasting associated with ancestor worship. Whilst clearly many of the South Asian examples are somewhat different to the monuments for which these models were conceived, it is suggested that many of their functions were similar.

In the light of these points, it is interesting to note that a number of scholars have suggested a link between the location of megalithic cemeteries in Sri Lanka, the provision of irrigation tanks and the distribution of fertile land (Seneviratne 1984: 239; Mann 1996), a pattern also present in southern India (Srinivasan and Banerjee 1953: 109; Rajan 1994). This further strengthens the concept of the megalith as a territorial marker and symbol of communal identity of a local community. It might even be tempting to associate such communities with the pre-state polities suggested by Gunawardene (Gunawardene 1982), centres for Seneviratne's chieftain-led, clan-based village settlements (Seneviratne 1992: 101). A number of scholars have also drawn attention to the link between the location of megalithic cemeteries in Sri Lanka, the provision of irrigation tanks, the distribution of fertile land and the location of Buddhist stupas (Seneviratne 1984: 242, 251-2; Ragupathy 1987: 58, 183; Mann 1997: 50). This link is strengthened by the clear physical similarities between the two monument categories as well. Both are the ritual focus of a community, both are associated with funerary practices, and both may be interpreted as a vehicle for masking inequalities within the redistribution of surplus and the development of obligations and debt - they are both centres of, at one and the same time, influence and affluence. This point has been summarized by Ragupathy who, commenting on the votive Buddhist

stupas of the site of Kantarodai, states (1987: 183):

They seem to be burial monuments of monks, a buddhicised version of megalithism... The monuments explain, how at that time, the socio-economic and cultural conditions in Jaffna were able to adopt the Buddhist cult and were able to articulate it in their own way.

Buddhism, as I have suggested previously, attracted sponsorship from the emerging elite owing to a number of factors, which included harsh ascetic practices, miraculous powers, a desire to be in places of wilderness, a strong organization with links all over the subcontinent, an imperial connection to the Mauryan dynasty and 'the authority of distant knowledge' (Coningham 1995a: 239). It offered, in addition, a further attraction in that it had the ability to synchronize a new, centralized ideology with older ritual practices with the replacement of the megalith by the stupa (Pl. Xb), and in so doing to produce an enduring, centralized system of socio-political integration which could mobilize and concentrate large numbers of population in a sacred centre - the city of Anuradhapura - and was to culminate in the classic Anuradhapura period.

Volume II of the present report, *Anuradhapura: The Artefacts*, contains some of the evidence for the above models. In advance of the complete publication of monographs on excavations at Mantai, Kantarodai, Pomparippu, Ibbankatuva and the sondages from the Citadel of Anuradhapura, it will provide one of the most complete artefact typologies for the Early Historic period in the island, and indeed in the southern part of the subcontinent.

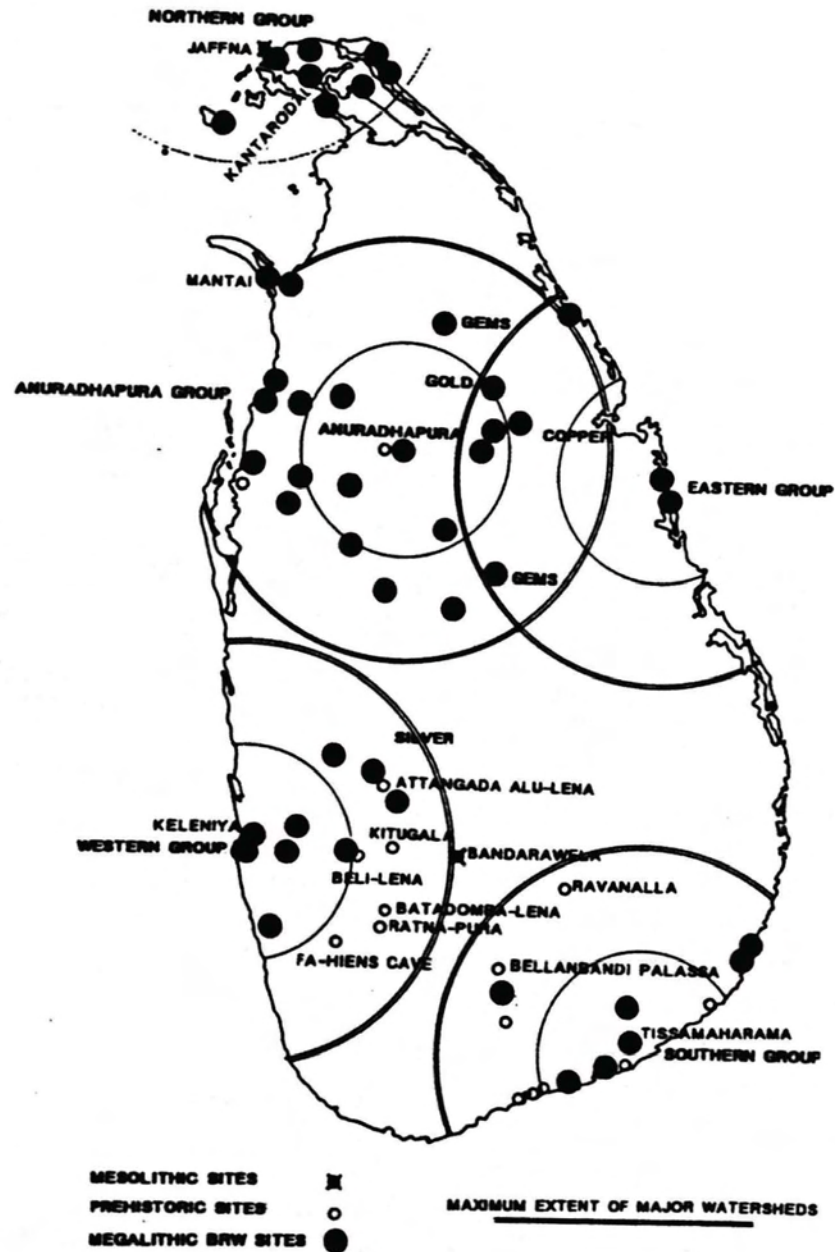


Fig. 120: Map showing later prehistoric and Iron Age sites in Sri Lanka

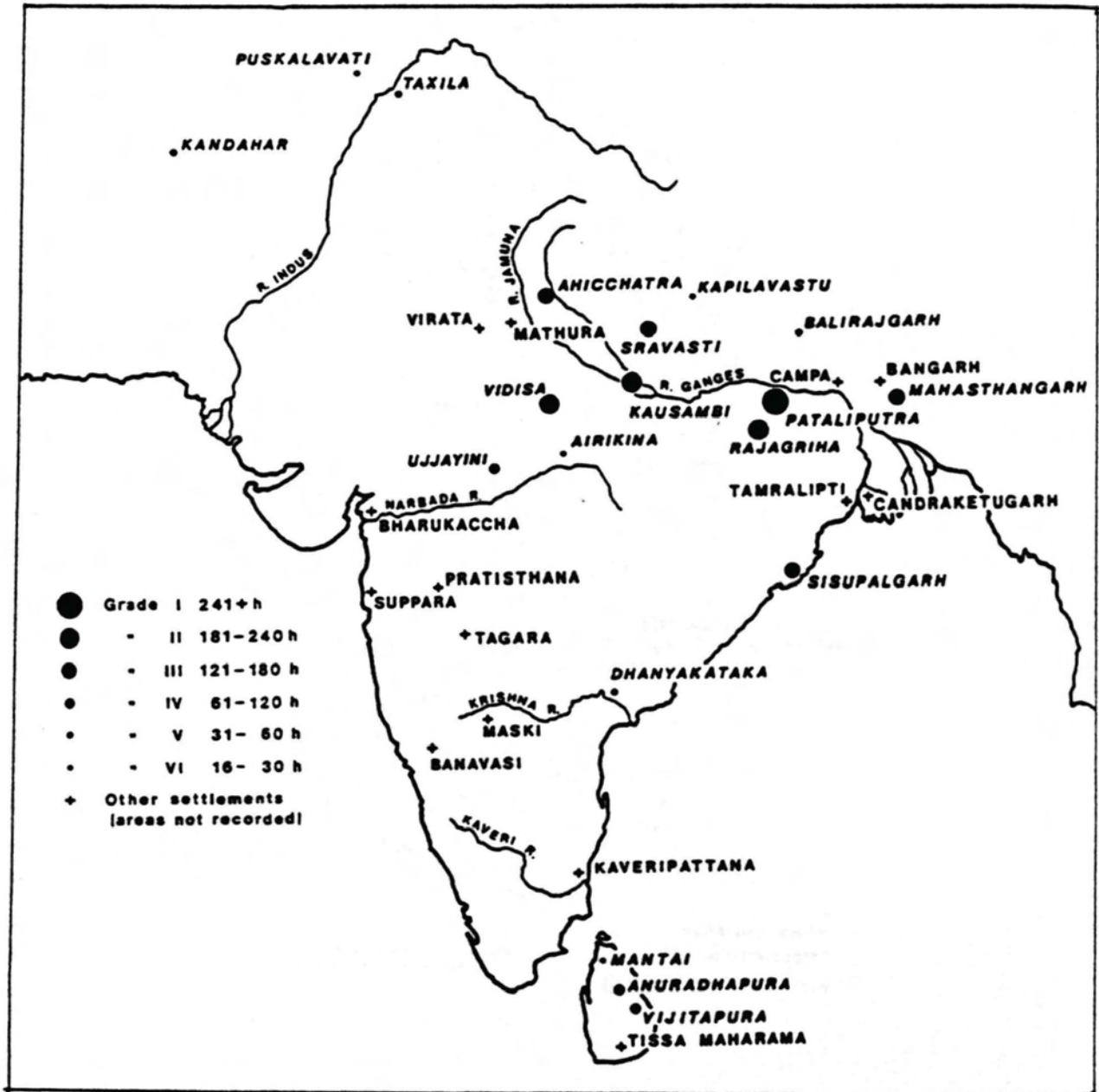


Fig. 121: Map showing Early Historic urban sites in South Asia (adapted from Allchin 1990)

Conclusions

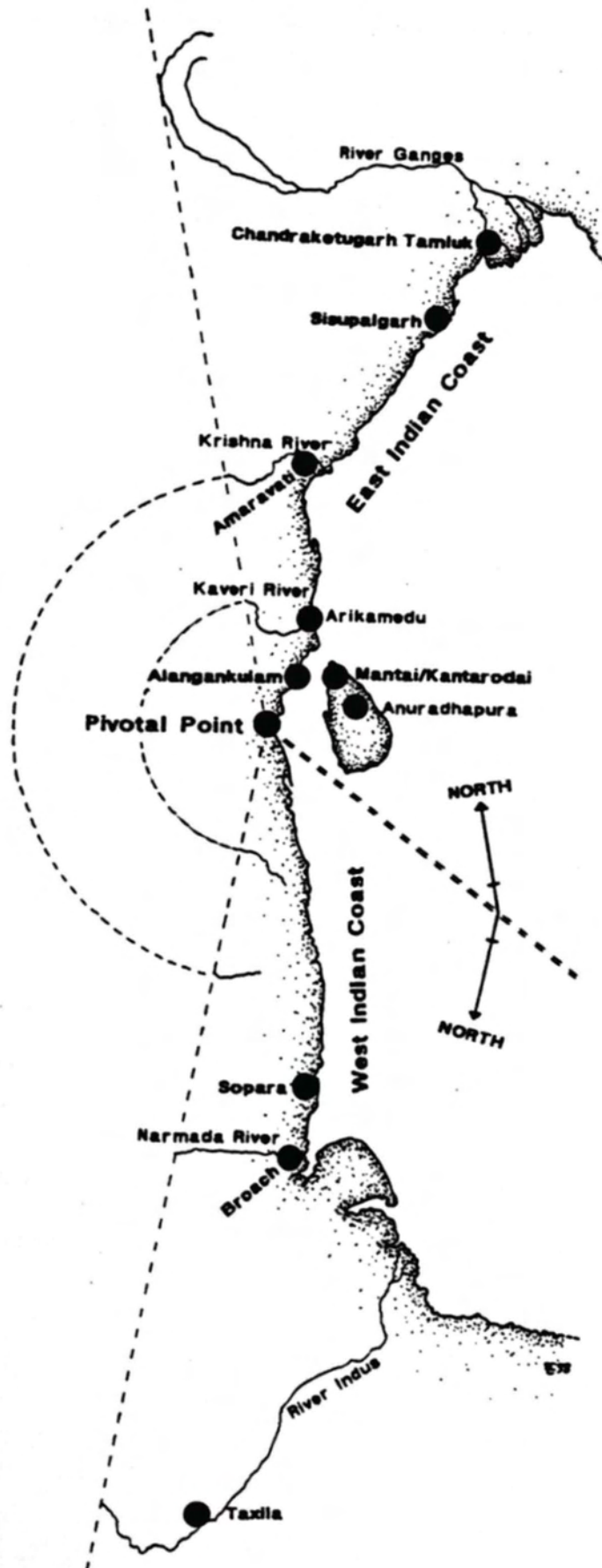


Fig. 122: Map showing an alternative location of Sri Lanka

PREVIEW OF CONTENTS OF VOLUME II

ANURADHAPURA: THE ARTEFACTS

Preface	F.R. Allchin
Chapter 1: Introduction	Robin Coningham
Chapter 2: Coins	Osmund Bopearachchi
Chapter 3: Metal Objects	Robin Coningham and Paul Harrison
Chapter 4: Metal-working Residues	Gerry McDonnell, Robin Coningham and Adam Russell
Chapter 5: Glazed Ceramics	Sheila Canby, Robin Coningham and Philip Seely
Chapter 6: Unglazed Ceramics	Robin Coningham, Steven Cheshire and Ruth Young
Chapter 7: Glass Objects	Robin Coningham
Chapter 8: Stone Objects	Daniella Burroni, Robin Coningham and Randy Donahue
Chapter 9: Epigraphy	Raymond Allchin
Chapter 10: Faunal Remains	Ruth Young, Robin Coningham, Kalum Nalinda and Jude Perera
Chapter 11: Human Remains	Chris Knusel, Robin Coningham and Seema Mann
Chapter 12: Botanical Remains	Ruth Young and Robin Coningham
Chapter 13: Conclusion	Robin Coningham
Index	

REFERENCES

Abbreviations

Arth.	Arthasastra
Cvs.	Culavamsa
IAR	Indian Archaeology: A Review
Mvs.	Mahavamsa
Raj.	Rajavaliya

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APPENDIX A

SRI LANKA'S RULERS: A CHRONOLOGICAL LIST

(based on De Silva 1981: 565-70)

Ruler	Length of reign	Capital
Vijaya		
Upatissa		
Panduvasudeva		
Abhaya		
Pandukabhaya		Anuradhapura
Mutasiva		Anuradhapura
Devanampiya Tissa	r. 250-210 BC	Anuradhapura
Uttiya Mahasiva		Anuradhapura
Suratissa		Anuradhapura
Sena & Guttika		Anuradhapura
Asela		Anuradhapura
Elara		Anuradhapura
Dutthagamani	r. 161-137 BC	Anuradhapura
Saddhatissa	r. 137-119 BC	Anuradhapura
Thulathana	r. 119 BC	Anuradhapura
Lanjatissa	r. 119-109 BC	Anuradhapura
Khallatanaga	r. 109-103 BC	Anuradhapura
Vattagamani Abhaya	r. 103 BC	Anuradhapura
Pulahattha		Anuradhapura
Bahiya		Anuradhapura
Panayamara		Anuradhapura
Pilayamara		Anuradhapura
Dathika		Anuradhapura
Vattagamani Abhaya (restored)	r. 89-77 BC	Anuradhapura
Mahaculi Mahatissa	r. 77-63 BC	Anuradhapura
Coranaga	r. 63-51 BC	Anuradhapura
Tissa	r. 51-48 BC	Anuradhapura
Siva		Anuradhapura
Vatuka		Anuradhapura
Darubhatika Tissa		Anuradhapura
Niliya		Anuradhapura
Queen Anula	r. 48-44 BC	Anuradhapura
Kutakanna Tissa	r. 44-22 BC	Anuradhapura
Bhatika Abhaya	r. 22 BC-AD 7	Anuradhapura
Mahadathika Mahanaga	r. AD 7-19	Anuradhapura
Amanda-gamani Abhaya	r. AD 19-29	Anuradhapura
Kanirajanu Tissa	r. AD 29-32	Anuradhapura
Culabhaya	r. AD 32-3	Anuradhapura
Queen Sivali	r. AD 33 AD	Anuradhapura
Ilanaga	r. AD 33-43	Anuradhapura
Candamukha Siva	r. AD 43-52	Anuradhapura
Yasalalaka Tissa	r. AD 52-60	Anuradhapura
Sabha	r. AD 60-67	Anuradhapura
Vasabha	r. AD 67-111	Anuradhapura
Vankanasika Tissa	r. AD 111-14	Anuradhapura
Gajabahu-gamani	r. AD 114-36	Anuradhapura

Mahallaka Naga	r. AD 136-43	Anuradhapura
Bhatika Tissa	r. AD 143-67	Anuradhapura
Kanitha Tissa	r. AD 167-86	Anuradhapura
Khujjanaga	r. AD 186-7	Anuradhapura
Kumcanaga	r. AD 187-9	Anuradhapura
Sirinaga I	r. AD 189-209	Anuradhapura
Voharika Tissa	r. AD 209-31	Anuradhapura
Abhayanaga	r. AD 231-40	Anuradhapura
Sirinaga II	r. AD 240-42	Anuradhapura
Vijaya-kumara	r. AD 242-3	Anuradhapura
Samghatissa I	r. AD 243-7	Anuradhapura
Sirisamghabodhi	r. AD 247-9	Anuradhapura
Gothabhaya or Meghavanna		
Abhaya	r. AD 249-62	Anuradhapura
Jetthatissa I	r. AD 263-73	Anuradhapura
Mahasena	r. AD 274-301	Anuradhapura
Sirimeghavanna	r. AD 301-28	Anuradhapura
Jetthatissa II	r. AD 328-37	Anuradhapura
Buddhadasa	r. AD 337-65	Anuradhapura
Upatissa I	r. AD 365-406	Anuradhapura
Mahanama	r. AD 406-28	Anuradhapura
Chattagahaka Jantu	r. AD 428	Anuradhapura
Mittasena	r. AD 428-9	Anuradhapura
Pandu	r. AD 429-34	Anuradhapura
Parinda	r. AD 434-7	Anuradhapura
Khudda Parinda	r. AD 437-52	Anuradhapura
Tiritara	r. AD 452	Anuradhapura
Dathiya	r. AD 452-5	Anuradhapura
Pithiya	r. AD 455	Anuradhapura
Dhatusena	r. AD 455-73	Anuradhapura
Kassapa I	r. AD 473-91	Anuradhapura
Moggallana I	r. AD 491-508	Sigiriya
Kumara-Dhatusena	r. AD 508-16	Anuradhapura
Kittisena	r. AD 516-17	Anuradhapura
Siva	r. AD 517	Anuradhapura
Upatissa II	r. AD 517-18	Anuradhapura
Silakala, Ambasamanera	r. AD 518-31	Anuradhapura
Dathapabhuti	r. AD 531	Anuradhapura
Moggallana	r. AD 531-51	Anuradhapura
Kittisirimegha	r. AD 551-69	Anuradhapura
Mahanaga	r. AD 569-71	Anuradhapura
Aggabodhi I	r. AD 571-604	Anuradhapura
Aggabodhi II	r. AD 604-14	Anuradhapura
Samghatissa II	r. AD 614	Anuradhapura
Moggallana III	r. AD 614-19	Anuradhapura
Silameghavanna	r. AD 619-28	Anuradhapura
Aggabodhi III,		
Sirisamghabodhi	r. AD 628	Anuradhapura
Jetthatissa II	r. AD 628	Anuradhapura
Aggabodhi III (restored)	r. AD 629-39	Anuradhapura
Dathopatisa I	r. AD 639-50	Anuradhapura
Kassapa II	r. AD 650-59	Anuradhapura
Dappula I	r. AD 659	Anuradhapura
Hatthadatha I	r. AD 659-67	Anuradhapura
Aggabodhi IV	r. AD 667-83	Anuradhapura
Datta	r. AD 683-4	Anuradhapura
Hatthadatha II	r. AD 684	Anuradhapura
Manavamma	r. AD 684-718	Anuradhapura
Aggabodhi V	r. AD 718-24	Anuradhapura

Appendix A

Kassapa III	r. AD 724-30	Anuradhapura
Mahinda I	r. AD 730-33	Anuradhapura
Aggabodhi VI, Silamegha	r. AD 733-72	Anuradhapura
Aggabodhi VII	r. AD 772-7	Anuradhapura
Mahinda II, Silamegha	r. AD 777-97	Anuradhapura
Udaya I	r. AD 797-801	Anuradhapura
Mahinda III	r. AD 801-804	Anuradhapura
Aggabodhi VIII	r. AD 804-15	Anuradhapura
Dappula II	r. AD 815-31	Anuradhapura
Aggabodhi IX	r. AD 831-3	Anuradhapura
Sena I	r. AD 833-53	Anuradhapura
Sena II	r. AD 853-87	Anuradhapura
Udaya II	r. AD 887-98	Anuradhapura
Kassapa IV	r. AD 898-914	Anuradhapura
Kassapa V	r. AD 914-23	Anuradhapura
Dappula III	r. AD 923-4	Anuradhapura
Dappula IV	r. AD 924-35	Anuradhapura
Udaya III	r. AD 935-8	Anuradhapura
Sena III	r. AD 938-46	Anuradhapura
Udaya IV	r. AD 946-54	Anuradhapura
Sena IV	r. AD 954-6	Anuradhapura
Mahinda IV	r. AD 956-72	Anuradhapura
Sena V	r. AD 972-82	Anuradhapura
Mahinda V	r. AD 982-1029	Anuradhapura
Kassapa VI	r. AD 1029-40	Anuradhapura
Mahalana-Kitti	r. AD 1040-42	Rohana
Vikrama Pandu	r. AD 1042-3	Rohana
Jagatipala	r. AD 1043-6	Rohana
Parakrama Pandu	r. AD 1046-8	Rohana
Loka	r. AD 1048-54	Rohana
Kassapa VII	r. AD 1054-5	Rohana
Vijayabahu I	r. AD 1055-1110	Rohana
Jayabahu I	r. AD 1110-11	Rohana
Vikramabahu I	r. AD 1111-32	Rohana
Gajabahu II	r. AD 1132-53	Polonnaruva
Parakramabahu I	r. AD 1153-86	Polonnaruva
Vijayabahu II	r. AD 1186-7	Polonnaruva
Nissanka Malla	r. AD 1187-96	Polonnaruva
Vikramabahu II	r. AD 1196	Polonnaruva
Codaganga	r. AD 1196-7	Polonnaruva
Queen Lilavati	r. AD 1197-1200	Polonnaruva
Sahassa Malla	r. AD 1200-1202	Polonnaruva
Queen Kalyanavati	r. AD 1202-1208	Polonnaruva
Dharmasoka	r. AD 1208-1209	Polonnaruva
Anikanga, Mahadipada	r. AD 1209	Polonnaruva
Queen Lilavati (restored)	r. AD 1209-10	Polonnaruva
Lokesvara	r. AD 1210-11	Polonnaruva
Queen Lilavati (restored)	r. AD 1211-12	Polonnaruva
Parakrama Pandu	r. AD 1212-15	Polonnaruva
Magha	r. AD 1215-30	Polonnaruva
Vijayabahu III	r. AD 1232-6	Dambadeniya
Parakramabahu II	r. AD 1236-70	Dambadeniya
Vijayabahu IV	r. AD 1270-72	Polonnaruva
Bhuvanekabahu I	r. AD 1272-84	Dambadeniya and Yapahuva

- Interregnum -

Parakramabahu III	r. AD 1287-93	Polonnaruva
Bhuvanekabahu II	r. AD 1293-1302	Kurunagala

Parakramabahu IV	r. AD 1302-26	Kurunagala
Bhuvanekabahu III		
Vijayabahu V	r. AD 1335-41	
Bhuvanekabahu IV	r. AD 1341-51	Gampola
Parakramabahu V	r. AD 1344-59	Gampola and Dadigama
Vikramabahu III	r. AD 1357-74	Gampola
Kings of Kotte		
Bhuvanekabahu V	r. AD 1371-1408	Gampola and Kotte
Parakramabahu VI	r. AD 1411-66	Kotte
Jayavira Parakramabahu	r. AD 1466-9	Kotte
Bhuvanekabahu VI	r. AD 1469-77	Kotte
Pandita Parakrabahu VII	r. AD 1477	Kotte
Vira Parakramabahu VIII	r. AD 1477-89	Kotte
Dharma Parakramabahu IX	r. AD 1489-1513	Kotte
Vijayabahu VI	r. AD 1513-21	Kotte
Bhuvanekabahu VII	r. AD 1521-51	Kotte
Dharmapala	r. AD 1551-97	Kotte
Kings of Sitavaka		
Mayadunne	r. AD 1521-81	Sitavaka
Rajasimha I	r. AD 1581-93	Sitavaka
Rajasuriya	r. AD 1593-4	Sitavaka
Kings of Kandy		
Senasammata Vikramabahu	r. AD 1469-1511	Kandy
Jayavira	r. AD 1511-52	Kandy
Karaliyadde	r. AD 1552-82	Kandy
Vimala Dharma Suriya I	r. AD 1591-1604	Kandy
Senarat	r. AD 1604-35	Kandy
Rajasimha II	r. AD 1635-87	Kandy
Vimala Dharma Suriya II	r. AD 1687-1707	Kandy
Narendra Simha	r. AD 1707-39	Kandy
Vijaya Rajasimha	r. AD 1739-47	Kandy
Kirti Sri Rajasimha	r. AD 1747-82	Kandy
Rajadhirajasimha	r. AD 1782-98	Kandy
Sri Vikrama Rajasimha	r. AD 1798-1815	Kandy

Appendix B: ASW2 Context Descriptions

Context	Square	Date	Colour	Texture (%)	Size	Depth	Relationship	Interp.	Phase	Period
1 all	28.12.89	10yr 4/3	100humus				a1	top soil	CXVIII	A2
2 all	28.12.89	10yr 7/1	100concrete				b1 a3	floor	CXVI	A1
3 all	28.12.89	10yr 4/3	60st.40rubble				b2 a4	foundation	CXV	A1
4 all	28.12.89	10yr 4/3	60st.40rubble				b3 a5	old land surf	CXIV	
5 all	3.1.90	10yr 4/2	60c.40s				b4 a9	old land surf	CXII	
6 sw	3.1.90	10yr 4/2	70c.30st				fill of 68	posthole fill	CXIII	B5
7 sw	3.1.90	10yr 3/5	60s.40c				fill of 69	posthole fill	CXIII	B5
8 sw	3.1.90	5yr 3/2	20c.20s.60st				fill of 71	posthole fill	CXIII	B5
9 all	6.1.90	10yr 3/4	70s.30st				b5 a26	old land surf	CVI	
10 sw	7.1.90	10yr 3/4	100c				b5 a9	eroded floor?	CIX	B4
11 sw	7.1.90	10yr 3/3	50s.50c				fill of 282	robber pit fill	CX	B4
12 se.sw	8.1.90	10yr 2/2	100c				b5 a9	collapse?	CVIII	B4
13 se	8.1.90	10yr 2/1	60c.40s				fill of 79	pit fill	CXVII	A1
14 all	13.1.90	5yr 5/6	50s.25g.25c				b26 a37	old land surf	CII	
15 nw	13.1.90	10yr 3/4	100c				b5 a9	floor/melt?	CXI	B4
16 nw.sw	13.1.90	10yr 3/3	80s.20c				fill of 94	pit fill	CIII	B3
17 se	13.1.90	10yr 3/4	70s.30c				b9 a14	root disturb	CXIII	B5
18 ne	15.1.90	10yr 2/2	100c				fill of 101	slot fill	CV	B3
19 all	16.1.90	10yr 3/3	50s.25brik.25p				fill of 282	robber pit fill	CX	B4
20 se	16.1.90	10yr 3/6	90c.10st				fill of 274	robber pit fill	XCV	D
21 se	16.1.90	10yr 3/6	90c.10st				fill of 274	robber pit fill	XCV	D
22 se	16.1.90	10yr 3/6	50s.50c				fill of 102	posthole fill	XCVI	B1
23 se	16.1.90	10yr 3/4	50s.50c				fill of 106	posthole fill	XCVI	B1
24 all	17.1.90	10yr 4/3	70c.30s				b37 a25	old land surf	C	
25 nw.ne	16.1.90	10yr 5/6	50c.50s				b24.27 aXCV	old land surf	XCVII	
26 all	16.1.90	10yr 3/6	70rub.15c.15s				b9 a14	floor/melt?	CIV	B3
27 all	17.1.90	10yr 4/3	70s.30c				b37 a25	'=24	C	
28 nw.sw	17.1.90	10yr 4/6	70c.30s				fill of 109	pit fill	CIII	B3
29 nw	17.1.90	5yr 5/6	40s.30c.30g				b14 a24.27	dump?	C1	B2
30 sw	18.1.90	2.5yr 2.5/2	70s.30c				fill of 110	posthole fill	XCVI	B1
31 nw	19.1.90	5yr 4/4	60s.40c				fill of 116	posthole fill	XCVIII	B1
32 nw	19.1.90	5yr 4/3	75s.25c				fill of 117	posthole fill	XCVIII	B1
33 nw	19.1.90	5yr 4/3	80s.20c				fill of 118	posthole fill	XCVIII	B1
34 ne	20.1.90	5yr 3/2.5	60s.40c				fill of 119	posthole fill	XCVIII	B1
35 se	20.1.90	5yr 3/3	69s.40c				fill of 120	posthole fill	XCVI	B1

APPENDIX B

ASW2 CONTEXT DESCRIPTIONS

36 se	20.1.90	5yr 3/3	60s.40c			fill of 114	pit fill	XCVI	B1
37 se	19.1.90	10yr 2/2	60c.25st.15s			fill of 143	slot fill	C1	B2
38 sw	22.1.90	5yr 3/2	60c.40s			fill of 144	posthole fill	XCVIII	B1
39 nw	22.1.90	10yr 3/4	70s.30c			fill of 145	posthole fill	XCVIII	B1
40 nw	22.1.90	5yr 3/2	50s.50c			fill of 167	posthole fill	XCVIII	B1
41 all	20.1.90	10yr 4/3	70s.30c			b37 a25	'=24	C	
42 se.ne	20.1.90	5yr 2.5/2	100c			fill of 275	robber pit fill	XCV	D
43 ne	22.1.90	10yr 2/2	60c.40s			fill of 213	slot fill	XCVI	B1
44 se	22.1.90	10yr 3/4	50s.50c			fill of 276	robber pit fill	XCV	D
45 all	22.1.90	10yr 3/4	80st.20c			fill of 297	robber pit fill	XCV	D
46 ne	22.1.90	7.5yr 3/4	70s.30c			fill of 148	pit fill	XCVI	B1
47 nw	22.1.90	10yr 3/2	100ash			fill of 230	slot fill	XCVI	B1
48 ne	22.1.90	10yr 3/1	70s.30c			b24.27 a25	foundation?	XCVIII	B1
49 se	24.1.90	10yr 3/6	90c.10st			fill of 274	robber pit fill	XCV	D
50 se	22.1.90	5yr 3/3	80s.20c			fill of 311	robber pit fill	XCV	D
51 nw	23.1.90	7.5yr 5/2	80ash.20c			b24.27 a82	ash fill	XCIX	B1
52 nw	23.1.90	7.5yr 5/6	70s.30c			fill of 231	posthole fill	XCIX	B1
53 nw	23.1.90	7.5yr 4/4	70s.30c			fill of 232	posthole fill	XCIX	B1
54 nw	23.1.90	7.5yr 5/4	65s.35c			fill of 233	posthole fill	XCIX	B1
55 nw	23.1.90	5yr 3/3	50c.40s.10st			fill of 234	slot fill	XCVI	B1
56 se.sw	23.1.90	10yr 3/4	90s.10st			fill of 275	robber pit fill	XCV	D
57 nw	24.1.90	7.5yr 3/8	80brik.10c.10s			b48 a25	tile dump	XCVIII	B1
58 nw	24.1.90	2.5yr 2.5/2	30chr.50c.20s			fill of 235	posthole fill	XCVI	B1
59 nw	24.1.90	7.5yr 4/6	70s.30c			fill of 236	posthole fill	XCVI	B1
60 se	24.1.90	5yr 2.5/2	100c			fill of 274	robber pit fill	XCV	D
61 all	24.1.90	10yr 3/4	80st.20c			fill of	'=45	XCV	D
62 ne	24.1.90	10yr 3/2	90c.10s			fill of 237	posthole fill	XCVI	B1
63 nw	24.1.90	5yr 4/3	50s.50c.brik			fill of 238	slot fill	XCVI	B1
64 se	25.1.90	2.5yr 3/4	90s.10c			fill of 239	posthole fill	XCVIII	B1
65 sw	25.1.90	5yr 3/2	30c.20s.50brik			fill of 282	robber pit fill	CX	B4
66 se	25.1.90	2.5yr 3/6	90s.10c			fill of 240	posthole fill	XCVIII	B1
67 ne	25.1.90	7.5yr 4/4	60s.30c.10st			fill of 297	robber pit fill	XCV	D
68 sw	3.1.90			30cm	28cm	b4 c5	posthole	CXIII	B5
69 sw	3.1.90			17.5cm	26cm	b4 c5	posthole	CXIII	B5
70 se	26.1.90	5yr 3/2	60st.30c.20s			fill of 311	robber pit fill	XCV	D
71 sw	3.1.90			20cm	28cm	b4 ac5	posthole	CXIII	B5
72 ne	26.1.90	7.5yr 4/4	40s.60c			fill of 276	robber pit	XCV	D
73 all	26.1.90	7.6yr 4/6	80g.20s			b185 a403	foundation	XCIII	
74 sw	26.1.90	7.5yr 3/4	80s.20st			bXCV a185	erosion?	XCIV	E

75 all	26.1.90		100brick			b73 a403	foundation	XCII	F
76 nw.ne	26.1.90	10yr 6/4	75c.25s			fill of 375.279	robber pit fill	XCV	D
77 ne	26.1.90	5yr 3/3	50c.40s.10st			fill of 234	'=55	XCVI	B1
78 sw.se	29.1.90	10yr 4/4	40s.20g.40c			fill of 276	robber pit fill	XCV	D
79 se	8.1.90			225x77.5cm	85cm	b1 c4	pit fill	CXVII	A1
80 sw	29.1.90	7.5yr 3/4	80s.20st			fill of 274	robber pit fill	XCV	D
81 ne	29.1.90	7.5yr 6/4	100s			fill of 275.279	robber pit fill	XCV	D
82 nw	29.1.90	10yr 5/6	50c.50s			b24.27 aXCV	foundation	XCIX	
83 sw	30.1.90	5yr 3/2	60c.30st.20s			fill of 242	slot fill	XCVI	B1
84 nw	30.1.90	10yr 4/4	100c			fill of 312	robber pit fill	XCV	D
85 all	30.1.90		100brick			b74 a364...	pavement	XCIII	F
86 ne	31.1.90	2.5yr 2.5/4	50c.30s.20pot			fill of 319	robber pit fill	XCV	D
87 sw	31.1.90	10yr 2/2	60st.40c			fill of 274	robber pit fill	XCV	D
88 ne.nw	31.1.90	7.5yr 6/4	100s			fill of 375.279	robber pit fill	XCV	D
89 sw	31.1.90	10yr 4/3	85s.15st			fill of 274	robber pit fill	XCV	D
90 nw	31.1.90	2.5yr 2.5/4	80c.20s			fill of 297	robber pit fill	XCV	D
91 ne	31.1.90	2.5yr 3/2	60s.40c			fill of 302	robber pit fill	XCV	D
92 sw	31.1.90	10yr 3/3	70s.30st			fill of 274	robber pit fill	XCV	D
93 nw	31.1.90	5yr 3/2	80st.20c			fill of 274	robber pit fill	XCV	D
94 all	13.1.90			170x150	90cm	b9c c26	pit	CIII	B3
95 nw	1.2.90	10yr 4/6	60s.25c.15st			fill of 275	robber pit fill	XCV	D
96 sw.nw	1.2.90	5yr 2.5/2	100c			fill of 275	robber pit fill	XCV	D
97 se	1.2.90	7.5yr 4/4	80s.20st			fill of 274	robber pit fill	XCV	D
98 ne	1.2.90	10yr 3/4	80c.20s			fill of 297	robber pit fill	XCV	D
99 all	28.12.89		80c.20stone			b1 a3	wall	CXV	A1
100 ne	1.2.90	2.5yr 3/6	80s.20c			fill of 302	robber pit fill	XCV	D
101 ne	15.1.90			100x20cm	17.5cm	b9 c26	slot	CV	B3
102 se	16.1.90			11cm	10cm	b24.27 c21	posthole	XCVI	B1
103 nw	2.2.90	5yr 3/3	50s.30c.20gr			fill of 275	robber pit fill	XCV	D
104 nw	10.2.90	5yr 2.5/2	100st			fill of 275	robber pit fill	XCV	D
105 se	2.2.90	5yr 3/2	80st.20c			fill of 274	robber pit fill	XCV	D
106 se	16.1.90			11cm	10cm	b24.27 c21	posthole	XCVI	B1
107 nw	2.2.90	7.5yr 3/4	50c.40s.10st			fill of 275	robber pit fill	XCV	D
108 nw	2.2.90	10yr 5/8	80st.20c			fill of 312	robber pit fill	XCV	D
109 all	13.1.90			95x80cm	43cm	b9 c14	pit	CIII	B3
110 sw	18.1.90			15cm	13cm	b24.27 c21	posthole	XCVI	B1
111 sw	6.2.90	10yr 2/2	50brik.40st.10c			fill of 313	robber pit fill	XCV	D
112 ne	5.2.90	10yr 3/4	90s.10c			fill of 297	robber pit fill	XCV	D
113 ne	8.2.90	10yr 3/4	90c.10s			fill of 297	robber pit fill	XCV	D

114 se	20.1.90			80x50cm	17cm	b24.27 c44	pit	XCVI	B1
115 se	5.2.90	5yr 2.5/1	80c.20s			fill of 243	pit	XCVI	B5
116 nw	19.1.90			13cm	6cm	b24.27 c25	posthole	XCVIII	B1
117 nw	19.1.90			11.5cm	13cm	b24.27 c25	posthole	XCVIII	B1
118 nw	19.1.90			12cm	9cm	b24.27 c25	posthole	XCVIII	B1
119 ne	20.1.90			8cm	8.5cm	b24.27 c45	posthole	XCVIII	B1
120 se	20.1.90			13cm	13cm	b24.27 c21	posthole	XCVI	B1
121 ne	6.2.90	5yr 3/2	70s.30c			fill of 297	robber pit fill	XCV	D
122 se	7.2.90	5yr 2.5/1	50s.50c			fill of 311	robber pit fill	XCV	D
123 se	7.2.90	5yr 6/4	80s.20st			fill of 274	robber pit fill	XCV	D
124 nw	7.2.90	10yr 4/4	60s.20st.20c			fill of 277	robber pit fill	XCV	D
125 ne	7.2.90		100brik			fill of 279	robber pit fill	XCV	D
126 se	12.1.90	10yr 2/2	60st.40c			fill of 274	robber pit fill	XCV	D
127 all	8.2.90		100brik			fill of 312	robber pit fill	XCV	D
128 se	8.2.90	7.5yr 3/4	90s.10s			fill of 282	robber pit fill	XCV	D
129 se	8.2.90	10yr 4/3	100st			fill of 243	pit fill	XCVI	B5
130 sw	8.2.90	10yr 4/2	100st			fill of 535	well fill	XCV	D
131 se	8.2.90	10yr 5/4	100st			fill of 243	pit fill	XCVI	B5
132 nw	13.2.90	10yr 5/6	100c			fill of 312	robber pit fill	XCV	D
133 ne	12.2.90	5yr 6/4	80s.20st			fill of 274	robber pit fill	XCV	D
134 ne	12.2.90	10yr 5/6	80c.20s			fill of 274	robber pit fill	XCV	D
135 ne	12.2.90	10yr 3/4	70s.30c			fill of 297	robber pit fill	XCV	D
136 ne	12.2.90			25x15cm	17cm	fill of 319	pit	XCV	D
137 ne	12.2.90	10yr 3/4	60s.40c			fill of 136	pit fill	XCV	D
138 nw	12.2.90	10yr 5/2	70c.20st.10s			fill of 277	robber pit fill	XCV	D
139 nw	12.2.90	10yr 5/4	40c.40s.20gr			fill of 277	robber pit fill	XCV	D
140 se	12.2.90	5yr 6/4	80s.20st			fill of 274	robber pit fill	XCV	D
141 ne	31.1.90		80brik.20c			fill of 302	robber pit fill	XCV	D
142 se	13.2.90	10yr 4/4	90s.5g.5st			fill of 276	robber pit fill	XCV	D
143 se	19.1.90			575x100cm	12.5cm	b9 c24.27	slot	C1	B2
144 sw	22.1.90			16cm	12cm	b24.27 c25	posthole	XCVIII	B1
145 nw	22.1.90			13cm	7cm	b24.27 c25	posthole	XCVIII	B1
146 nw	20.2.90	10yr 3/6	80s.20c			fill of 146	pit fill	XCV	D
147 ne	16.2.90			8.5cm	7.5cm	b74 c185	posthole	XCIII	F
148 ne	22.1.90			30cm	45cm	b24.27 c43	pit	XCVI	B1
149 nw	13.2.90	10yr 5/2	40c.20s.40ash			fill of 132	robber pit fill	XCV	D
150 ne	13.2.90	10yr 3/4	80c.10s.10snl			fill of 274	robber pit fill	XCV	D
151 se	13.2.90	7.5yr 3/4	70s.30s			fill of 276	robber pit fill	XCV	D
152 ne	13.2.90	10yr 5/8	90c.10			fill of 274	robber pit fill	XCV	D

153 nw	14.2.90	7.5yr 4/6	70s.10c.20st			fill of 312	robber pit fill	XCV	D
154 nw	14.2.90	10yr 4/3	50c.30st.20s			fill of 312	robber pit fill	XCV	D
155 nw	16.2.90	10yr 4/3	70s.30c			fill of 302	robber pit fill	XCV	D
156 se	15.2.90	10yr 3/3	95c.5s			fill of 276	robber pit fill	XCV	D
157 all	16.2.90	7.5yr 3/4	70st.30c			fill of 312	robber pit fill	XCV	D
158 se	16.2.90	10yr 3/4	80c.20s			fill of 313	robber pit fill	XCV	D
159 nw	15.2.90	10yr 4/3	100c			fill of 312	robber pit fill	XCV	D
160 ne	16.2.90	10yr 5/2	80s.20c			fill of 246	posthole fill	XCIII	F
161 ne	16.2.90	10yr 4/3	45s.25c			fill of 247	posthole fill	XCIII	F
162 ne	16.2.90	10yr 3/6	75s.25c			fill of 248	posthole fill	XCIII	F
163 nw	16.2.90	10yr 4/4	60c.40s			fill of 312	robber pit fill	XCV	D
164 ne	16.2.90	10yr 3/4	60s.40c			fill of 249	posthole fill	XCIII	F
165 ne	16.2.90	10yr 3/6	65s.35c			fill of 147	posthole fill	XCIII	F
166 se	16.2.90	10yr 4/6	75s.25c			fill of 276	robber pit fill	XCV	D
167 nw	22.1.90			10cm	8cm	b24.27 c25	posthole	XCVIII	B1
168 nw	16.2.90	10yr 5/4	50c.30s.20gr			fill of 357	robber pit fill	XCV	D
169 nw	16.2.90					b168 c364	foundation	XCIII	F
170 ne	19.2.90					b185 a203	foundation	XCIII	F
171 ne	19.2.90	5yr 3/2	100c			fill of 297	robber pit fill	XCV	D
172 nw	19.2.90	10yr 4/4	100c			fill of 312	robber pit fill	XCV	D
173 ne	19.2.90	7.5yr 3/2	70s.30c			fill of 297	robber pit fill	XCV	D
174 ne	19.2.90	5yr 2.5/2	100c			fill of 279	robber pit fill	XCV	D
175 nw	19.2.90	10yr 4/3	60s.40c			fill of 312	robber pit fill	XCV	D
176 nw	19.2.90		100brick			b73 a403	'=364...	XCII	F
177 se	19.2.90	10yr 4/4	50c.50s			fill of 276	robber pit fill	XCV	D
178 ne	19.2.90	5yr 2.5/1	100c			fill of 279	robber pit fill	XCV	D
179 nw	19.2.90	10yr 4/4	100c			fill of 312	robber pit fill	XCV	D
180 nw	19.2.90	5yr 6/4	100pot			within 176	burial?	XCIII	F
181 se	19.2.90	10yr 4/4	50c.50s			fill of 276	robber pit fill	XCV	D
182 se	20.2.90	10yr 3/4	60c.40s			fill of 276	robber pit fill	XCV	D
183 ne	20.2.90	2.5yr 3/2	100c			fill of 279	robber pit fill	XCV	D
184 ne	20.2.90	10yr 3/6	70s.30c			fill of 279	robber pit fill	XCV	D
185 all	20.2.90		100brick			b74 a364...	'=85	XCII	F
186 nw	20.2.90	10yr 4/3	80s.20c			fill of 312	robber pit fill	XCV	D
187 nw	20.2.90	10yr 3/6	80s.20c			fill of 238	slot fill	XCIX	B1
188 sw	20.2.90	10yr 5/4	90s.10g			fill of 282	robber pit fill	XCV	D
189 ne	20.2.90	6yr 3/2	100c			fill of 297	robber pit fill	XCV	D
190 nw	20.2.90	10yr 4/4	90s.10st			fill of 277	robber pit fill	XCV	D
191 nw	20.2.90	6yr 3/2	100c			fill of 277	robber pit fill	XCV	D

192 sw	20.2.90	10yr 5/2	95s.5brik		fill of 282	robber pit fill	XCV	D
193 ne	20.2.90	2.5yr 2.5/4	90s.10c		fill of 297	robber pit fill	XCV	D
194 nw	21.2.90	7.5yr	90s.10st		b185 a364...	foundation	XCIII	F
195 ne	21.2.90	10yr 3/3	90c.10s		fill of 297	robber pit fill	XCV	D
196 se	24.2.90	10yr 4/6	60c.40s		fill of 297	robber pit fill	XCV	D
197 sw	21.2.90	2.5yr 3/6	50s.45c.5st		fill of 282	robber pit fill	XCV	D
198 nw	21.2.90	7.5yr 3/4	60c.20s.10st		fill of 277	robber pit fill	XCV	D
199 nw	21.2.90	7.5yr 4/4	50c.30s.20st		fill of 277	robber pit fill	XCV	D
200 sw	21.2.90	5yr 3/4	60st.10gr.30s		b185 a364...	foundation	XCIII	F
201 ne	21.2.90	10yr 3/6	100c		fill of 297	robber pit fill	XCV	D
202 nw	21.2.90	5yr 3/4	60c.40s		b185 a403	'=364	XCII	F
203 ne	21.2.90	10yr 4/2	80c.20s		b170 a206	'foundation	XCIII	F
204 ne	21.2.90	10yr 4/4	90s.10g		fill of 302	robber pit fill	XCV	D
205 ne	22.2.90	5yr 4/3	70s.30c		fill of 297	robber pit fill	XCV	D
206 ne	22.2.90	10r 4/6	60c.40s		b203 a207	foundation	XCIII	F
207 ne	22.2.90	10yr 7/4	80c.20s		b206 a208	foundation	XCIII	F
208 ne	22.2.90	10r 4/6	60c.40s		b207 a208	foundation	XCIII	F
209 ne	22.2.90	10yr 6/6	80c.20s		b208 a223	foundation	XCIII	F
210 nw	22.2.90	10yr 4/2	85s.15st		b188 a194	foundation	XCIII	F
211 ne	22.2.90	10yr 4/3	90st.10s		fill of 302	robber pit fill	XCV	D
212 nw	22.2.90	10yr 4/3	90st.10s		fill of 277	robber pit fill	XCV	D
213 ne	22.1.90			185x42.5cm 10cm	b24.27 c45	slot	XCVI	B1
214 ne	22.2.90	10yr 4/2	90s.10g		fill of 302	robber pit fill	XCV	D
215 ne	22.2.90	10yr 4/4	90c.10s		fill of 297	robber pit fill	XCV	D
216 ne	24.2.90	10yr 3/6	80g.20s		b185 a203	'=170	XCIII	F
217 se	24.2.90	10yr 5/4	60s.20c.20st		fill of 274	robber pit fill	XCV	D
218 ne	24.2.90	10yr 6/4	90st.10s		b185 a364	pillar 374	XCIII	F
219 ne	28.6.90	10yr 4/4	60s.40gr		b185 a364	pillar 374	XCIII	F
220 ne	24.2.90	10yr 6/4	80st.20s		b185 a364	pillar 374	XCIII	F
221 ne	24.2.90	7.5yr 5/6	100gr		b185 a364	pillar 374	XCIII	F
222 ne	24.2.90	10yr 7/6	50s.50brik		b185 a364	pillar 374	XCIII	F
223 ne	24.2.90	10yr 4/6	80s.20c		b209 a227	foundation	XCIII	F
224 ne	24.2.90	7.5yr 5/4	70s.30c		fill of 297	robber pit fill	XCV	D
225 sw.se	24.2.90	7.5yr 4/4	40s.40c.20st		fill of 274	robber pit fill	XCV	D
226 ne	24.2.90	10yr 4/4	50c.50s		fill of 302	robber pit fill	XCV	D
227 ne	24.2.90	10yr 5/4	80s.20c		b223 a364?	foundation	XCIII	D
228 se.sw	24.2.90	10r 4/6	100gr		b185 a364	pillar J	XCIII	F
229 ne	24.2.90	5yr 3/4	100c		fill of 297	robber pit fill	XCV	D
230 nw	22.1.90			225x40cm 59cm	b24.27 c25	slot	XCVI	B1

231 nw	23.1.90			15cm	19cm	b24.27 c82	posthole	XCIX	B1
232 nw	23.1.90			9cm	4cm	b24.27 c82	posthole	XCIX	B1
233 nw	23.1.90			9cm	5cm	b24.27 c82	posthole	XCIX	B1
234 nw	23.1.90			300x27.5cm	7cm	b24.27 c45	slot	XCVI	B1
235 nw	24.1.90			30cm	65cm	b24.27 c45	posthole	XCVI	B1
236 nw	24.1.90			15cm	20cm	b24.27 c25	posthole	XCVI	B1
237 ne	24.1.90			10cm	6.8cm	b24.27 c45	posthole	XCVI	B1
238 nw	24.1.90			145x65cm	12cm	b24.27 c42	slot	XCVI	B1
239 se	25.1.90			10cm	26cm	b24.27 c57	posthole	XCVIII	B1
240 se	25.1.90			15cm	15cm	b24.27 c57	posthole	XCVIII	B1
241 ne	26.1.90			10cm	6.8cm	b24.27 c45	posthole	XCVI	B1
242 sw	30.1.90			95x12.5cm	29cm	b24.27 c42	slot	XCVI	B1
243 se	8.2.90			95x62.5cm	124cm	b24.27 c57	pit	XCVI	B5
244 ne	26.1.90			5cm	4cm	b24.27 c45	posthole	XCVI	B1
245 se	26.1.90			10cm	8.5cm	b24.27 c50	posthole	XCVI	B1
246 ne	16.2.90			13cm	6cm	b74 c185	posthole	XCIII	F
247 ne	16.2.90			16cm	5cm	b74 c185	posthole	XCIII	F
248 ne	16.2.90			11cm	6cm	b74 c185	posthole	XCIII	F
249 ne	16.2.90			20cm	17cm	b74 c185	posthole	XCIII	F
250 sw	4.6.90	10yr 5/2	70c.25s.5brik			fill of 282	'=188	XCV	D
251 sw	4.6.90	10yr 4/3	90st.10s			fill of 282	'=192	XCV	D
252 sw	4.6.90	2.5yr 3/6	50s.45c.5st			fill of 282	'=197	XCV	D
253 nw	4.6.90	10yr 5/2	70c.20st.1Cs			fill of 277	'=138	XCV	D
254 se	4.6.90	5yr 6/4	80s.20st			fill of 274	'=123	XCV	D
255 se	4.6.90	10yr 6/2	80st.20brik			fill of 274	robber pit fill	XCV	D
256 se	8.6.90	10yr 5/2	100c			fill of 274	robber pit fill	XCV	D
257 se	4.6.90	10yr 2/2	60st.40c			fill of 274	robber pit fill	XCV	D
258 nw	4.6.90	10yr 5/2	70c.20st.10s			fill of 274	'=138	XCV	D
259 sw	5.6.90	10yr 4/4	60c.30s.10st			fill of 282	robber pit fill	XCV	D
260 nw	5.6.90		100brik			b364 a407	'=446	LXXXVII	G5
261 nw	5.6.90	10yr 4/3	90st.10s			fill of 277	'=212	XCV	D
262 se	6.6.90	7.5yr 4/6	80s.20c			fill of 274	robber pit fill	XCV	D
263 nw	8.6.90	5yr 2.5/2	100brik			fill of 275	wall	XCV	C
264 nw	8.6.90		20s.80brik			fill of 278	pillar support	XCIII	F
265 se	8.6.90					fill of 274	cleaning	XCV	D
266 se	8.6.90	5yr 2.5/1	50s.50c			fill of 311	'=122	XCV	D
267 se	12.6.90	10yr 4/4	30c.20g.50s			fill of	'=78	XCV	D
268 se	11.6.90	10yr 4/4	90s.5g.5st			fill of 276	'=142	XCV	D
269 se	11.6.90	7.5yr 3/4	70s.30s			fill of 276	'=151	XCV	D

270 se	11.6.90	10yr 4/6	75s.25c	fill of 276	'=166	XCV	D
271 se	11.6.90	10yr 4/4	50c.50s	fill of 276	'=181	XCV	D
272 se	11.6.90	10yr 4/6	60c.40s	fill of 297	'=196	XCV	D
273 se	11.6.90	7.5yr 4/4	80s.20st	fill of 274	robber pit fill	XCV	D
274 se	11.6.90			b24.27 c185	robber pit	XCV	D
275 nw	11.6.90			b24.27 c185	robber pit	XCV	D
276 se	11.6.95			b24.27 c185	robber pit	XCV	D
277 nw	14.6.90			b82. c185	robber pit	XCV	D
278 nw	14.6.90			b185 c364	foundation pit	XCIII	F
279 ne	14.6.90			b25 c185	robber pit	XCV	D
280 se	14.6.90			b185 c364	foundation pit	XCIII	F
281 se	14.6.90		20s.80brik	fill of 280	pillar support	XCIII	F
282 sw	4.6.90			b5 c9	robber pit	CX	B4
283 ne	12.6.90	10yr 4/4	100g	fill of 302	'=204	XCV	D
284 nw.ne	12.6.90	10yr 6/4	75c.25s	fill of 375.279	'=76	XCV	D
285 ne	12.6.90	10yr 4/3	90st.10s	fill of 302	'=211	XCV	D
286 ne	14.6.90	5yr 3/2	100c	fill of 297	'=171	XCV	D
287 ne	14.6.90	7.5yr 3/2	70s.30c	fill of 297	'=173	XCV	D
288 ne	14.6.90	5yr 2.5/2	100c	fill of 279	'=174	XCV	D
289 ne	14.6.90	5yr 2.5/1	100c	fill of 279	'=178	XCV	D
290 ne	14.6.90	2.5yr 3/2	100c	fill of 279	'=289	XCV	D
291 ne	14.6.90	10yr 3/6	70s.30c	fill of 279	'=184	XCV	D
292 ne	14.6.90	2.5yr 2.5/4	90s.10c	fill of 297	'=193	XCV	D
293 ne	14.6.90	10yr 3/6	100c	fill of 297	'=201	XCV	D
294 ne	14.6.90	5yr 4/3	70s.30c	fill of 297	'=205	XCV	D
295 ne	14.6.90	10yr 4/4	90c.10s	fill of 297	'=215	XCV	D
296 ne	14.6.90	7.5yr 5/4	70s.30c	fill of 297	'=224	XCV	D
297 ne	13.6.90			b24.27 c185	robber pit	XCV	D
298 ne	5.2.90	10yr 3/4	90s.10c	fill of 297	'=112	XCV	D
299 se	14.6.90	7.5yr 4/4	70s.10c.20st	fill of 276	robber pit fill	XCV	D
300 se	18.6.90	10yr 3/4	60c.40s	fill of 276	'=182	XCV	D
301 ne	14.6.90	10yr 5/4	100st	fill of 302	robber pit fill	XCV	D
302 ne	14.6.90			b25 c185	robber pit	XCV	D
303 se	14.6.90	7.5yr 4/4	70g.30s	fill of 274	robber pit fill	XCV	D
304 ne	15.6.90			b185 a364	pillar support	XCIII	F
305 sw	15.6.90			b185 a364	pillar support	XCIII	F
306 sw	15.6.90			b185 a364	pillar support	XCIII	F
307 se	15.6.90			b185 a364	pillar support	XCIII	F
308 /	15.6.90			b185 a364	pillar support	XCIII	F

309 nw	15.6.90						b185 a364	pillar moving	XCIII	F
310 ne	15.6.90						b185 a364	pillar support	XCIII	F
311 se	15.6.90						c1057	robber pit	XCV	D
312 ne	15.6.90						b25 c185	robber pit	XCV	D
313 sw	15.6.90						b24.27 c185	robber pit	XCV	D
314 sw	15.6.90						b5 c9	'=282	CX	B4
315 nw	15.6.90						b24.27 c185	robber pit	XCV	D
316 ne	18.6.90	10yr 5/3	60s.40st				fill of 279	robber pit fill	XCV	D
317 se	18.6.90	5yr 5/3	60c.30s.10st				fill of 297	robber pit fill	XCV	D
318 se	18.6.90	2.5yr 6/4	70s.20st.10g				fill of 274	robber pit fill	XCV	D
319 ne	18.6.90						b24.27 c185	robber pit	XCV	D
320 ne	18.6.90	10yr 3/4	100st				fill of 319	robber pit fill	XCV	D
321 sw	18.6.90						b5 c9	'=282	CX	B4
322 nw	18.6.90	10yr 5/3	60st.40s				fill of 357	robber pit fill	XCV	D
323 ne	18.6.90	10yr 5/3	40st.60c				fill of 279	robber pit fill	XCV	D
324 ne	20.6.90	10yr 5/4	100s				fill of 279	robber pit fill	XCV	D
325 ne	19.6.90	10yr 5/3	60s.40c				fill of 302	robber pit fill	XCV	D
326 ne	19.6.90	10yr ne	100s				fill of 302	robber pit fill	XCV	D
327 ne	19.6.90	10yr 5/3	60s.40c				fill of 302	robber pit fill	XCV	D
328 se	20.6.90						b24.27 c185	'=pit 276?	XCV	D
329 ne	20.6.90	10yr 4/4	100st				fill of 328	robber pit fill	XCV	D
330 se	14.6.90	7.5yr 4/4	70s.10c.20st				fill of 276	cleaning 276	XCV	D
331 se	20.6.90	10yr 5/2	100c				fill of 274	'=256	XCV	D
332 se	20.6.90	10yr 5/2	100c				fill of 274	'=256	XCV	D
333 se	20.6.90						b24.27 c185	robber pit	XCV	D
334 ne	21.6.90	10yr 5/4	100st				fill of 279	robber pit fill	XCV	D
335 ne	22.6.90	10yr 7/8	80s.20st				fill of 302	robber pit fill	XCV	D
336 se	22.6.90		100pot				pot	pillar support	XCIII	F
337 ne	22.6.90	7.5yr 5/4	70s.30c				fill of 297	robber pit fill	XCV	D
338 ne	22.6.90	10yr 4/3	70st.30s				fill of 302	robber pit fill	XCV	D
339 nw	22.6.90			177.5x60cm	12.5cm		b364 a390	wall	LXXXVII	G5
340 se	22.6.90	10yr 5/6	85c.15s				fill of 341	posthole fill	LXXXVII	G5
341 se	22.6.90			15x12.5cm	8cm		b364 c339	posthole	LXXXVII	G5
342 ne	22.6.90	10yr 3/4	100st				fill of 319	'=320	XCV	D
343 nw	25.6.90	10yr 4/6	100c				fill of 357	robber pit fill	XCV	D
344 nw	25.6.90	10yr 4/4	100s				fill of 357	robber pit fill	XCV	D
345 sw	26.6.90						b185 a364	pillar support	XCIII	F
346 ne	25.6.90						fill of 279	cleaning	XCV	D
347 ne	25.6.90	10yr 3/8	50s.50c				fill of 319	robber pit fill	XCV	D

348 sw	16.7.90	10r 4/5	80st.20s
349 sw	16.7.90	10yr 6/2	80st.20s
350 se.sw	16.7.90	7.5yr 5/4	80st.20s
351 sw	16.7.90	10yr 4/5	80s.20st
352 nw	26.6.90	10yr 4/4	100c
353 ne	26.6.90	10yr 4/3	100s
354 sw	26.6.90	10yr 3/4	100st
355 ne	26.6.90		
356 ne.nw	26.6.90	7.5yr 5/4	60s.40st
357 nw	26.6.90		
358 se.ne	28.6.90		
359 nw	26.6.90	10yr 4/6	100st
360 ne	26.6.90	10yr 3/4	50s.50c
361 nw	26.6.90	7.6yr 4/6	80g.20s
362 ne	27.6.90		
363 ne	27.6.90		
364 ne	27.6.90	7.6yr 4/6	80g.20s
365 nw	27.6.90	7.6yr 4/6	80g.20s
366 se	27.6.90	7.6yr 4/6	80g.20s
367 sw	27.6.90	7.6yr 4/6	80g.20s
368 nw.ne	27.6.90	7.5yr 4/6	60s.40g
369 se	27.6.90		
370 se	27.6.90		
371 nw	27.6.90	5y 6/5	80g.20s
372 nw	28.6.90		100slag
373 ne.nw	28.6.90	5yr 4/4	95s.5st
374 nw	28.6.90		
375 nw.ne	29.6.90	10yr 5/2	60c.30s.10brk
376 nw	29.6.90	10yr 6/4	60s.30c.10g
377 se	29.6.90	7.6yr 4/6	80g.20s
378 se	5.7.90		
379 sw	5.7.90		
380 ne	5.7.90	10yr 5/5	80st.20s
381 ne	5.7.90		100pot
382 ne	5.7.90		100pot
383 ne	5.7.90		100pot
384 ne.se	6.7.90	7.5yr 4/4	60st.40g
385 sw	6.7.90	10yr 5/4	60st.40s
386 nw	16.7.90	10yr 5/4	60st.40g

b185 a364	pillar support	XCII	F
b185 a364	pillar support	XCII	F
b364 a390	collapse	XCI	G5
b185 a364	pillar support	XCII	F
fill of 357	robber pit fill	XCV	D
fill of 319	robber pit fill	XCV	D
fill of 314	robber pit fill	XCV	D
b185 a364	pillar support	XCIII	F
fill of 357	robber pit fill	XCV	D
b24.27 c185	robber pit	XCV	D
b185 a364	pillar support	XCIII	F
fill of 357	robber pit fill	XCV	D
fill of 319	robber pit fill	XCV	D
b185 a403	'=73nw	XCII	
b185 a364	pillar support	XCIII	F
b185 a364	pillar support	XCIII	F
b185 a403	'=73ne	XCII	
b185 a403	'=73nw	XCII	
b185 a403	'=73se	XCII	
b185 a403	'=73sw	XCII	
fill of 357	robber pit fill	XCV	D
b185 a364	pillar support	XCIII	F
b185 a364	pillar support	XCIII	F
b185 a364	lense in 73	XCII	
b185 a364	slag in 73	XCII	
fill of 357	robber pit fill	XCV	D
b185 a364	pillar support	XCIII	F
b405 a419	'=409	LXXXVIII	
b364 a403	collapse	LXXXVI	
b185 a403	lense in 366	XCII	
b185 a364	pillar support	XCIII	F
b185 a364	pillar support	XCIII	F
fill of 297	robber pit fill	XCV	D
b405 a409	pot	LXXXIX	G5
b405 a409	pot	LXXXIX	G5
b405 a409	pot	LXXXIX	G5
b364 a390	'=416	XCI	G5
b364 a390	'=413	XCI	G5
b364 a390	'=417	XCI	G5

387 nw	16.7.90		100brick			b364 a407	'=446	LXXXVII	G5
388 nw	16.7.90		20s.80brik			fill of 278	'=264	XCIII	F
389 sw	16.7.90	7.6yr 4/8	80g.20s			b185 a403	'=73sw	XCII	
390 ne.nw.se	16.7.90	10yr 4/4	50c.40s.10st			b416...a470	'=390	LXXXVI	
391 sw	16.7.90	7.6yr 4/8	80g.20s			b185 a403	'=73sw	XCII	
392 sw	16.7.90	7.5yr 5/4	80st.20s			b364 a390	collapse	XC	G5
393 sw	17.7.90	10yr 5/2	70c.25s.5brik			fill of 282	'=188	XCV	D
394 sw	17.7.90	10yr 4/3	80st.10c.10s			fill of 535	well fill	XCV	D
395 sw	17.7.90	7.5yr 5/4	80st.20s			b364 a390	collapse	XC	G5
396 se	17.7.90	10yr 5/4	60st.40s			b364 a390	'=413	XC	G5
397 se	17.7.90	10yr 5/4	60st.40s			b364 a390	'=413	XC	G5
398 se.sw	16.7.90	7.5yr 5/4	80st.20s			b364 a390	'=350	XC	G5
399 se	17.7.90	10yr 5/4	60st.40g			b364 a390	'=415	XC	G5
400 se	18.7.90	10yr 6/4	80c.20s			b364 a390	collapse	XC	G5
401 sw	18.7.90	5y 5/3	70st.30s			fill of 535	well fill	XCV	D
402 se.sw	18.7.90			500x135cm	38.2cm	a390 b364	'=437	LXXXVII	G5
403 nw	18.7.90		100brick			b364 a405	paving	XC	G5
404 se	18.7.90	2.5yr	70g.30c			b364 a390	collapse	XC	G5
405 nw	19.7.90		100brick			b405 a409	paving	XC	G5
406 sw	19.7.90	7.5yr 4/4	80s.20st			b364 a390	collapse	XC	G5
407 nw	19.7.90			285x52cm	24cm	b446 a805	wall	LXXXV	G4
408 nw	19.7.90		100limestone			b409 a805	paving	LXXXV	G4
409 nw	19.7.90	10yr 5/2	60c.30s.10brk			b405 a419	foundation	LXXXVIII	
410 sw	19.7.90	5y 5/3	100st			fill of 535	well fill	XCV	D
411 sw	19.7.90	5y 5/4	100st			fill of 535	well fill	XCV	D
412 se	19.7.90		100plaster			b416 a437	wall plaster	LXXXVII	G5
413 se	20.7.90	10yr 5/4	60st.40s			b364 a390	collapse	XC	G5
414 sw	20.7.90	10yr 5/4	60st.40g			b364 a 450	collapse	XC	G5
415 se	20.7.90	10yr 5/4	60st.40g			b364 a390	collapse	XC	G5
416 ne.se	20.7.90	10yr 5/4	60st.40s			b364 a390	collapse	XC	G5
417 nw	21.7.90	10yr 5/4	60st.40g			b364 a450	collapse	XC	G5
418 se	21.7.90	10yr 6/4	80c.20s			b364 a390	'=400	XC	G5
419 ne	21.7.90	5y 4/8	80g.20brik			b409 a426	foundation	LXXXVIII	
420 sw	21.7.90	5y 4/8	80st.20s			b364 a390	collapse	XC	G5
421 se	28.6.90					b185 a364	pillar support	XCIII	F
422 sw	23.7.90	7.5yr 4/8	80st.20s			b364 a390	collapse	XC	G5
423 se.sw	23.7.90	7.5yr 5/4	80st.20s			b364 a390	'=350	XC	G5
424 nw	24.7.90	5yr 4/4	100s			b364 a390	collapse	XC	G5
425 sw	24.7.90	7.5yr 3/4	80s.20st			b364 a390	collapse	XC	G5

426 ne	24.7.90	7.5yr 4/4	80c.20s			b419 a408	foundation	LXXXVIII	
427 se.sw	24.7.90	7.5yr 5/4	80st.20s			b364 a390	'=350	XCI	G5
428 ne	24.7.90			45x37.5cm	7cm	b364 a390	wall	LXXXVII	G5
429 sw	25.7.90	10yr 3/4	100st			fill of 535	cleaning well	XCV	D
430 se	25.7.90	2.5yr 3/4	70st.30s			fill of 443	pit fill	LXXXVII	G5
431 se.sw	25.7.90	7.5yr 5/4	80st.20s			b364 a390	'=350	XCI	G5
432 se	25.7.90	2.5yr 3/4	70st.30s			fill of 443	pit fill	LXXXVII	G5
433 se	26.7.90		100chr			fill of 434	posthole fill	LXXXVII	G5
434 se	26.7.90			10cm	12cm	b364 c437	posthole	LXXXVII	G5
435 se	26.7.90		100chr			fill of 435	slot fill	LXXXVII	G5
436 se	26.7.90			80x13cm	14.5cm	b364 c437	slot	LXXXVII	G5
437 ne.se	26.7.90			500x135cm	38.2cm	b364 a390	wall	LXXXVII	G5
438 se	26.7.90		100chr			fill of 439	posthole fill	LXXXVII	G5
439 se	26.7.90			12.5x5cm	6cm	b364 c437	posthole	LXXXVII	G5
440 sw	26.7.90	7.5yr 5/4	80st.20s			b364 a390	'=350	XCI	G5
441 ne	27.7.90	7.5yr 4/4	80s.40c			b364 a390	paving?	LXXXVII	G5
442 se	27.7.90			295x70cm	49cm	b364 a390	wall	LXXXVII	G5
443 se.sw	27.7.90			105x105cm	14.5cm	b364 a390	pit	LXXXVII	G5
444 ne	27.7.90			85x30cm	41cm	b364 a390	wall	LXXXVII	G5
445 sw	27.7.90			155x27.5cm	52.5cm	b364 a390	wall	LXXXVII	G5
446 nw	27.7.90			350x45cm	81cm	b364 a407	wall	LXXXVII	G5
447 nw	27.7.90			65x32.5cm	19cm	b364 a390	wall	LXXXVII	G5
448 sw	27.7.90			45x37.5cm	55.5cm	b364 a390	wall	LXXXVII	G5
449 sw	27.7.90			125x45cm	26.5cm	b364 a390	wall	LXXXVII	G5
450 nw.sw	27.7.90	7.5yr 5/8	25c.50g.25brk			b417 a488	paving	LXXXVII	G5
451 sw	27.7.90			62.5x7.5cm	2.5cm	b364 a390	wall?	LXXXVII	G5
452 sw	27.7.90			52.5x40cm	24cm	b364 a390	wall	LXXXVII	G5
453 sw	27.7.90			65x52.5cm	44.5cm	b364 a390	wall	LXXXVII	G5
454 nw	27.7.90			45x40cm	18.5cm	b364 a390	wall	LXXXVII	G5
455 nw	27.7.90			45x37.5cm	2.5cm	b364 a390	wall	LXXXVII	G5
456 nw	27.7.90			77.5x27.5cm	19.6cm	b364 a390	wall?	LXXXVII	G5
457 sw	27.7.90	10yr 4/4	50c.40s.10st			b416...a470	'=390	LXXXVI	
458 sw	28.7.90			50x40cm	55.5cm	b364 a390	wall?	LXXXVII	G5
459 sw	28.7.90			45x35cm	26.5cm	b364 a390	wall?	LXXXVII	G5
460 se	30.7.90			13x10cm	21cm	b364 c437	posthole	LXXXVII	G5
461 se	30.7.90		100chr			fill of 460	posthole fill	LXXXVII	G5
462 se	30.7.90			15x12cm	9cm	b364 c437	posthole	LXXXVII	G5
463 se	30.7.90		100chr			fill of 462	posthole fill	LXXXVII	G5
464 se	30.7.90			11x9cm	8cm	b364 c437	posthole	LXXXVII	G5

465 se	30.7.90		100chr			fill of 464	posthole fill	LXXXVII	G5
466 ne	30.7.90			11x7cm	12cm	b364 c444	posthole	LXXXVII	G5
467 nw	30.7.90	10yr 5/6	90c.10s			b390 a493	'=470	LXXXI	
468 ne	30.7.90	10yr 5/6	90c.10s			b390 a493	'=470	LXXXI	
469 se	30.7.90	10yr 5/6	90c.10s			b390 a493	'=470	LXXXI	
470 sw	30.7.90	10yr 5/6	90c.10s			b390 a493	old land surf	LXXXI	
471 ne	30.7.90			12cm	8cm	b364 c454	posthole	LXXXVII	G5
472 se	30.7.90			10x8cm	11cm	b364 c437	posthole	LXXXVII	G5
473 se	30.7.90		100chr			fill of 439	posthole fill	LXXXVII	G5
474 se	31.7.90			17cm	17cm	b390 c470	posthole	LXXXII	G4
475 se	31.7.90	10yr 4/4	90c.10s			fill of 474	posthole fill	LXXXII	G4
476 ne.se	30.7.90	10yr 5/6	90c.10s			b390 a493	'=470	LXXXI	
477 se	30.7.90			7x4cm	2.5cm	b364 c339	posthole	LXXXVII	G5
478 se	30.7.90		100chr			fill of 477	posthole fill	LXXXVII	G5
479 se	31.7.90			8cm	7cm	b390 c470	posthole	LXXXII	G4
480 se	31.7.90	10yr 4/4	90c.10s			fill of 479	posthole fill	LXXXII	G4
481 se	31.7.90			11cm	9cm	b390 c470	posthole	LXXXII	G4
482 se	31.7.90	10yr 4/4	90c.10s			fill of 481	posthole fill	LXXXII	G4
483 se	31.7.90			14x7cm	12cm	b390 c470	posthole	LXXXII	G4
484 se	31.7.90	10yr 4/4	90c.10s			fill of 483	posthole fill	LXXXII	G4
485 se	31.7.90			16cm	29cm	b390 c470	posthole	LXXXII	G4
486 se	31.7.90	10yr 4/4	90c.10s			fill of 485	posthole fill	LXXXII	G4
487 ne	31.7.90	10yr 5/6	90c.10s			b390 a493	'=470	LXXXI	
488 nw	2.8.90	7.5yr 5/8	25c.50g.25brk			b450 a470	paving	LXXXII	G4
489 nw	2.8.90	7.5yr 5/8	90c.10s			b470 a615	'=493	LXXV	
490 nw	2.8.90	7.5yr 5/8	90c.10s			b470 a615	'=493	LXXV	
491 se	3.8.90			330x75cm	12.5cm	b470 a493	wall	LXXVI	G3
492 se	3.8.90	5y 5/6	90c.10s			b470 a606	old land surf	LXXV	
493 all	3.8.90	7.5yr 5/6	90c.10s			b470 a615	old land surf	LXXV	
494 ne	4.8.90	7.5yr 5/6	90c.10s			b470 a615	'=493	LXXV	
495 se.sw	4.8.90	7.5yr 4/4	60c.40tile.brk			b470 a493	dump	LXXX	
496 se	8.8.90	7.5yr 4/4	70s.30c.tile			b498 a493	paving	LXXVI	G3
497 se	9.8.90			12cm	10cm	b470 c501	posthole	LXXVI	G3
498 se	9.8.90	10yr 4/4	60c.40s			fill of 497	posthole fill	LXXVI	G3
499 se	9.8.90			10cm	2.5cm	b470 c501	posthole	LXXVI	G3
500 se	9.8.90	10yr 4/4	60c.40s			fill of 499	posthole	LXXVI	G3
501 se	10.8.90	10yr 4/4	100c			fill of 516	slot fill	LXXVI	G3
502 ne	10.8.90			232.5x60cm	9cm	b470 a493	wall	LXXVI	G3
503 ne	10.8.90			260x110cm	8.5cm	b470 a493	wall	LXXVI	G3

504 sw	10.8.90			150x125cm	10.5cm	b498 a493	wall	LXXVI	G3
505 sw	10.8.90			185x65cm	12cm	b470 a493	wall	LXXVI	G3
506 sw.nw	10.8.90			205x62.5cm	9cm	b470 a493	wall	LXXVI	G3
507 nw	10.8.90	10r 4/8			8cm	b470 a493	wall	LXXVI	G3
508 se	11.8.90	10r 4/8	90g.10c			fill of 517	pit fill	LXXVIII	G3
509 sw	11.8.90		100limestone			b498 a493	paving	LXXVI	G3
510 ne	11.8.90	10yr 5/3	70c.30ash?			lense in 503	'=503	LXXVI	G3
511 ne	11.8.90		100brik.tile			b470 a493	paving?	LXXVI	G3
512 sw	11.8.90	7.5yr 4/4	70s.30c.tile			b470 a493	paving?	LXXVI	G3
513 ne	13.8.90			62.5x37.5cm	12.5cm	b470 a493	wall	LXXVI	G3
514 ne	13.8.90			65x60cm	7cm	b470 a493	wall	LXXVI	G3
515 ne	13.8.90	10yr 7/2	100c			b493 a663	'=615	LXVIII	
516 se	10.8.90			132.5x70cm	13.5cm	b470 c493	slot	LXXVI	G3
517 se	11.8.90			115x105cm	20cm	b470 c492	pit	LXXVIII	G3
518 nw	2.8.90			95x80cm	35.5cm	b470 c493	pit	LXXVI	G3
519 se	30.7.90		100chr			fill of 466	posthole fill	LXXXVII	G5
520 ne	30.7.90		100chr			fill of 471	posthole fill	LXXXVII	G5
521 se	30.7.90		100chr			fill of 472	posthole fill	LXXXVII	G5
522 se	30.7.90			11x10cm	8cm	b364 c442	posthole	LXXXVII	G5
523 se	30.7.90		100chr			fill of 522	posthole fill	LXXXVII	G5
524 se	30.7.90			10cm	9.5cm	b364 c442	posthole	LXXXVII	G5
525 se	30.7.90		100chr			fill of 524	posthole fill	LXXXVII	G5
526 se	30.7.90			25x20cm	12.5cm	b364 c444	posthole	LXXXVII	G5
527 se	30.7.90		100chr			fill of 526	posthole fill	LXXXVII	G5
528 ne	26.1.90	5yr 3/3	50st.30c.20s			fill of 241	posthole fill	XCVI	B1
529 ne	26.1.90	5yr 3/3	30s.30st.20c			fill of 144	posthole fill	XCVI	B1
530 se	26.1.90	5yr 3/2	60st.30c.20s			fill of 245	posthole fill	XCVI	B1
531 all	31.1.90		80stone.20brk			b5 a15	wall	CXI	B4
532 se	31.1.90		100brik			b5 a9	wall	CX	B4
533 all	31.1.90		80stone.20brk			b4 a5	wall	CXIII	B5
534 all	15.1.90		80stone.20brk			b9 a26	wall	CV	B3
535 sw	16.6.90					within 313	well	XCV	D
536 sw	26.1.90		100brik			b73 a364	wall	XCII	F
537 sw	26.1.90		100brik			b73 a364	buttress	XCII	F
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596 se	2.7.91			107.5x95cm	20cm	b492 c616	pit	LXXI	G2
597 nw	1.7.91		100 pot			fill of 598	pit fill (pot)	LXXXIV	G4
598 nw	1.7.91			75cm	55cm	b408 c605	pit	LXXXIV	G4
599 se.sw	3.7.91			165x105cm	12cm	b658 c659	pit	LXXIII	G2
600 all	29.6.91	5yr 3/4	70s.20c.10st				"=84 (cpfill)	XCV	D
601 se.sw	1.7.91	5yr 4/4	70c.30s			b493 a670...	'=659	LXXII	G2
602 nw	1.7.91	5yr 4/4	70c.30s			b493 a670...	'=659	LXXII	G2
603 nw	1.7.91		100chr	51x10cm		b493 a615	lense	LXVIII	G2
604 nw	1.7.91	7.5yr 5/6	90c.10s			b470 a615	old land surf	LXXV	
605 sw	1.7.91	10yr 5/4	70c.30g			b408 a613	levelling	LXXXIII	
606 se	2.7.91	2.5y 6/2	60c/40g			b492 a616	clay floor	LXX	
607 se	2.7.91	2.5yr 4/6	100g			fill of 596	pit fill	LXXI	G2
608 se	2.7.91			250x75cm	12.5cm	b492 a616	wall	LXXI	G2
609 ne	2.7.91	10yr 8/4	100s			fill of 612	pit fill	LXIX	G2
610 ne	2.7.91	10yr 8/4	100s			fill of 611	pit fill	LXIX	G2
611 ne	2.7.91			36cm	23.5cm	b493 c615	pit	LXIX	G2
612 ne	2.7.91			120x67.5cm	30.5cm	b493 c615	pit	LXIX	G2
613 nw	2.7.91		100limestone			fill of 633	pit fill	LXXIX	G3
614 ne	3.7.91			45x25cm	27cm	b493 a615	wall	LXIX	G2
615 ne.nw	3.7.91	10yr 7/2	100c			b493 a663	old land surf	LXVIII	
616 se	3.7.91	2.5y 6/2	60c.40g/s			b492 a670...	old land surf	LXX	
617 se	3.7.91	2.5yr 5/0	100c			fill of 618	posthole fill	LXXI	G2
618 se	3.7.91			14cm	8cm	b492 c616	posthole	LXXI	G2
619 se.sw	3.7.91	2.5yr 4/6	100g			fill of 599	pit fill	LXXIII	G2
620 nw	4.7.91			12cm	10cm	b493 c659	posthole	LXXIII	G2

621 nw	4.7.91	5yr 3/3	60c.40s			fill of 620	posthole fill	LXXIII	G2
622 nw	4.7.91			14cm	28cm	b493 c659	posthole	LXXIII	G2
623 nw	4.7.91	5yr 3/3	70c.30s			fill of 622	posthole fill	LXXIII	G2
624 sw	4.7.91			25cm	6cm	b693 c659	posthole	LXXIII	G2
625 sw	4.7.91	5yr 4/4	70c.30s			fill of 624	posthole fill	LXXIII	G2
626 ne	4.7.91			12cm	4cm	b493 c615	posthole	LXIX	G2
627 ne	4.7.91	10yr 4/2	100c			fill of 626	posthole fill	LXXIII	G2
628 se	4.7.91			45x15cm	8cm	b493 c659	pit	LXXIII	G2
629 se	4.7.91	5y 5/1	100chr			fill of 628	pit fill	LXXIII	G2
630 nw	4.7.91	5y 5/1	60s.40c			fill of 633	pit fill	LXXVI	G3
631 sw	4.7.91	5r 3/4	100g			fill of 638	pit fill	LXXIII	G2
632 nw	4.7.91	10yr 5/4	70c.30g			b408 a613	'=605	LXXXIII	
633 nw	4.7.91			112.5x90cm	22.5cm	b605 c604	pit	LXXVI	G3
634 nw	5.7.91	10yr 4/3	70c.30s			fill of 636	pit fill	LXIX	G2
635 nw	5.7.91	10yr 4/3	70c.20s.10pot			fill of 637	slot fill	LXXIII	G2
636 nw	5.7.91			35cm	8cm	b493 c615	pit	LXIX	G2
637 nw	5.7.91			195x45cm	44.5cm	b493 c659	slot	LXXIII	G2
638 sw	4.7.91			75x62.5cm	2cm	b658 a659	pit	LXXIII	G2
639 nw	5.7.91	5r 3/4	100g			fill of 662	slot fill	LXXIII	G2
640 ne	5.7.91	5yr 4/3	100c			fill of 641	posthole fill	LXIX	G2
641 ne	5.7.91			23x12cm	17.5cm	b493 c615	posthole	LXIX	G2
642 nw	5.7.91	10yr 3/4	100g			fill of 656	slot fill	LXXIII	G2
643 nw	5.7.91	5yr 4/4	70c.30s			b493 a670...	'=659	LXXII	
644 ne	5.7.91			20cm	19cm	b493 c615	posthole	LXIX	G2
645 ne	5.7.91	5yr 4/1	80c.20s			fill of 646	posthole fill	LXIX	G2
646 ne	5.7.91			15cm	7cm	b493 c615	posthole	LXIX	G2
647 ne	5.7.91	10yr 4/2	80c.20s			fill of 648	posthole fill	LXIX	G2
648 ne	5.7.91			14cm	10.5cm	b493 c615	posthole	LXIX	G2
649 ne	5.7.91	10yr 5/2	70c.30s			fill of 650	posthole fill	LXIX	G2
650 ne	5.7.91			17x15cm	7cm	b493 c615	posthole	LXIX	G2
651 ne	5.7.91	10yr 4/9	80c.20s			fill of 652	posthole fill	LXIX	G2
652 ne	5.7.91			20cm	15cm	b493 c615	posthole	LXIX	G2
653 nw	5.7.91	10yr 4/3	80c.20s			fill of 654	posthole fill	LXXIII	G2
654 nw	5.7.91			16cm	10cm	b493 c635	posthole	LXXIII	G2
655 ne	5.7.91	5r 3/4	100g			fill of 598	pot fill	LXXXIV	G4
656 nw	5.7.91			265x65cm	25cm	b493 c659	slot	LXXIII	G2
657 ne	5.7.91	5yr 4/1	80c.20s			fill of 644	posthole fill	LXIX	G2
658 sw.se	6.7.91	5y 3/4	70g.30tile			layer	dump	LXXIV	G2?
659 ne.se	6.7.91	5yr 4/4	70c.30s			b493 a670...	old land surf	LXXII	

660 sw	6.7.91		100charcoal	55x50cm		layer	hearth?	LXXII	G2
661 nw.sw	6.7.91	5yr 3/4	100g			fill of 667	pit fill	LXXIII	G2
662 sw	5.7.91			185x5cm	13.5cm	b658 c659	slot	LXXIII	G2
663 ne	6.7.91	10yr 4/2	40c.50s.10chr			b615 a670...	old land surf	LXVI	
664 ne	6.7.91	10yr 3/2	80c.20s			fill of 665	posthole fill	LXVII	G1
665 ne	6.7.91			13cm	4cm	b615 c663	posthole	LXVII	G1
666 nw	6.7.91	2.5yr 4/2	90brick.10c			layer	pit fill	LXXIII	G2
667 nw	6.7.91			87.5x62.5cm	35.5cm	b493 c659	foundation pit	LXXIII	G2
668 nw	6.7.91		100limestone			fill of 669	pit fill	LXIX	G2
669 nw	6.7.91			90x37.5cm	24.5cm	b493 c615	foundation pit	LXIX	G2
670 sw	8.7.91	2.5yr 5/4	90c.10s			b663 a744...	old land surf	LXIV	
671 ne	8.7.91	10yr 3/3	80c.20s			fill of 672	posthole fill	LXVII	G1
672 ne	8.7.91			13cm	8cm	b615 c663	posthole	LXVII	G1
673 ne	8.7.91	10yr 3/2	80c.20s			fill of 674	posthole fill	LXVII	G1
674 ne	8.7.91			13cm	12cm	b615 c663	posthole	LXVII	G1
675 ne	8.7.91	10yr 4/2	60s.40c			fill of 676	posthole fill	LXVII	G1
676 ne	8.7.91			30x27cm	22cm	b615 c663	posthole	LXVII	G1
677 ne	8.7.91	10yr 4/3	100c			fill of 678	fill of 678	LXVII	G1
678 ne	8.7.91			6cm	2cm	b615 c663	posthole	LXVII	G1
679 nw	8.7.91	10yr 4/3	60s.40c			fill of 680	posthole fill	LXVII	G1
680 nw	8.7.91			22.5x20cm	7.5cm	b615 c663	posthole	LXVII	G1
681 nw	8.7.91	10yr 4/4	60s.40c			fill of 682	posthole fill	LXVII	G1
682 nw	8.7.91			13cm	11.5cm	b615 c663	posthole	LXVII	G1
683 n	8.7.91	10yr 4/3	60s.40c			fill of 684	posthole fill	LXVII	G1
684 nw	8.7.91			7x5cm	5cm	b615 c663	posthole	LXVII	G1
685 nw	8.7.91	10yr 4/3	80c.20s			fill of 689	pit fill	LXIX	G2
686 nw	8.7.91	10yr 4/2	80c.20s			fill of 687	posthole fill	LXV	H2
687 nw	8.7.91			20cm	6.3cm	b615...c670...	posthole	LXV	H2
688 nw	8.7.91	10yr 4/2	80c.20s			fill of 689	fill of 689	LXV	H2
689 nw	8.7.91			14cm	13.5cm	b615...c670	posthole	LXV	H2
690 ne	8.7.91	10yr 3/3	60c.40s			fill of 691	pot fill	LXV	H2
691 ne	9.7.91			12.5cm	10.5cm	b615...c670...	pot	LXV	H2
692 nw	9.7.91	10yr 6/1	100burntc			fill of 733	trough fill	LXV	H2
693 nw	9.7.91	10yr 3/3	80c.20s			fill of 598	pit fill	LXXXIV	G4
694 ne	9.7.91	5r 3/6	100g			fill of 695	pit fill	LXVII	G1
695 ne	9.7.91			57.5x55cm	17.2cm	b615 c663	foundation pit	LXVII	G1
696 ne	9.7.91	7.5yr 5/6	60c.40tile			fill of 695	pit fill	LXVII	G1
697 ne	9.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
698 nw	10.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	

699 ne	10.7.91			22cm	10cm	b663 c718	posthole	LXV	H2
700 nw	10.7.91	5yr 2.5/1	80c.10s			fill of 699	posthole fill	LXV	H2
701 ne	11.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
702 sw	11.7.91			65x35cm	10cm	b670...c744...	posthole	LXIII	H1
703 sw	11.7.91	10yr 6/4	80s.20c			fill of 702	posthole fill	LXIII	H1
704 se	11.7.91			45x40cm	10.5cm	b670...c744...	posthole	LXIII	H1
705 se	11.7.91	10yr 6/4	80s.20c			fill of 704	posthole fill	LXIII	H1
706 se	11.7.91			525x25cm	35cm	b744...c729	slot	LIV	I8
707 se	11.7.91	5yr 4/4	80g.20c			fill of 706	slot fill	LIV	I8
708 sw	11.7.91			40x35cm	3cm	b670...c744...	posthole	LXIII	H1
709 sw	11.7.91	10yr 4/4	80c.20s			fill of 708	posthole fill	LXIII	H1
710 se	11.7.91			42x37cm	34cm	b670...c744...	posthole	LXIII	H1
711 se	11.7.91	10yr 6/4	75c.15s.10as			fill of 710	posthole fill	LXIII	H1
712 se	11.7.91			30x21cm	5.5cm	b670...c744...	posthole	LXIII	H1
713 se	11.7.91	10yr 6/5	70c.20s.10as			fill of 712	posthole fill	LXIII	H1
714 sw	11.7.91	10yr 4/4	70c.30s			fill of 751	pit fill	LIV	I8
715 se	11.7.91	10yr 5/4	40c.40st.20s			b670...a767...	'=744	LXII	
716 ne.nw	11.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
717 se	13.7.91	7.5yr 4/4	60c.40s			fill of 732	trough fill	LXV	H2
718 ne	13.7.91	10yr 2/1	60c.40s			fill of 735	trough fill	LXV	H2
719 ne	13.7.91	10yr 4/3	60c.40s			fill of 734	trough fill	LXIII	H1
720 ne	13.7.91	10yr 5/3	60c.40s			fill of 736	trough fill	LXIII	H1
721 nw	13.7.91	7.5yr 5/8	80c.20s			fill of 738	trough fill	LXIII	H1
722 nw	13.7.91	10yr 4/3	60c.40s			fill of 739	trough fill	LXIII	H1
723 nw	13.7.91	10yr 5/8	60c.40s			fill of 740	trough fill	LXIII	H1
724 sw	13.7.91	10yr 3/4	60c.40s			fill of 737	slot fill	LIV	I8
725 ne	12.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
726 ne	12.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
727 se	12.7.91	2.5yr 5/4	90c.10s			b663 a744...	'=670	LXIV	
728 sw	13.7.91	10yr 3/4	60c.40s			fill of 737	slot fill	LIV	I8
729 all	12.7.91	7.5yr 4/4	60s.40c			b744...a752...	old land surf	LIII	
730 nw	13.7.91	10yr 3/3	80c.20s			fill of 731	trough fill	LXIII	H1
731 nw	13.7.91			70x15cm	17.5cm	b670...c744...	trough	LXIII	H1
732 se	13.7.91			112.5x37.5cm	30cm	b615...c670...	trough	LXV	H2
733 ne	13.7.91			250x32.5cm	23cm	b615...c670...	trough	LXV	H2
734 ne	13.7.91			105x27.5cm	15cm	b670...c744	trough	LXIII	H1
735 ne	13.7.91			215x45cm	43cm	b663 c670...	trough	LXV	H2
736 ne	13.7.91			200x37.5cm	32cm	b670...c744...	trough	LXIII	H1
737 sw	13.7.91			287.5x30cm	45cm	b744...c729	slot	LIV	I8

738 nw	15.7.91			65x40cm	25cm	b670...c722	trough	LXIII	H1
739 nw	15.7.91			70x15cm	20cm	b738 c744...	trough	LXIII	H1
740 nw	15.7.91			65x42.5cm	12.5cm	b670...c744...	trough	LXIII	H1
741 ne	13.7.91	10yr 4/4	60c.40s			fill of 742	posthole fill	LXV	H2
742 ne	13.7.91			15x12.5cm	7cm	b615...c670...	posthole	LXV	H2
743 ne	12.7.91	10yr 5/4	40c.40st.20s			b670...a767...	'=744	LXII	
744 nw	15.7.91	10yr 5/4	40c.40st.20s			b670...a767	old land surf	LXII	
745 sw	15.7.91	10yr 3/4	100s			fill of 746	posthole fill	LIV	18
746 sw	15.7.91			15cm	6cm	b744...c714	posthole	LIV	18
747 sw	15.7.91	10yr 5/4	100s			fill of 748	posthole fill	LIV	18
748 sw	15.7.91			15cm	5cm	b744...c714	posthole	LIV	18
749 ne	16.7.91	7.5yr 6/8	75s.25c			b729 a837	foundation	LI	18
750 se	16.7.91	2.5y 8/2	100c			b744...a729	floor	LVII	18
751 se	16.7.91			175x125cm	18.5cm	b744...c729	pit	LIV	18
752 all	16.7.91	2.5y 8/2	100c			b729 a834	foundation	XLI	
753 se	16.7.91	2.5y 8/2	100c			b744...a729	floor	LV	18
754 nw	16.7.91	2.5y 8/2	100c			b744...a752...	floor?	LIX	18
755 sw	16.7.91			26x26cm	20cm	b744...c753	posthole	LVI	18
756 sw	16.7.91	7.5yr 4/4	60c.40s			fill of 755	posthole fill	LVI	18
757 sw	17.7.91			30x30cm	5cm	b744...c729	posthole	LIV	18
758 sw	17.7.91	10r 3/8	70s.30c			fill of 757	posthole fill	LIV	18
759 se	17.7.91			20x13cm	12cm	b744...c767	posthole?	LXI	18
760 se	17.7.91	7.5yr 3/2	100c			fill of 759	fill of 759	LXI	18
761 se	17.7.91			20x16cm	2cm	b744...c767	posthole	LXI	18
762 se	17.7.91	7.5yr 3/4	60c.40s			fill of 761	fill of 761	LXI	18
763 se	17.7.91			30cm	17cm	b729 c752	posthole	XLII	17
764 se	17.7.91	7.5yr 4/4	80c.20s			fill of 763	posthole fill	XLII	17
765 se	17.7.91			12.5cm	4.5cm	b767 c787	posthole	XLIV	17
766 se	17.7.91	7.5yr 6/2	90c.10s			fill of 765	posthole fill	XLIV	17
767 se.sw	17.7.91	5yr 4/8	50s.50c			b744...a767	old land surf	LX	
768 ne	17.7.91	5yr 4/8	50s.50c			b744...a767	'=767	LX	
769 sw	17.7.91	10r 4/8	90c.10s			b744...a790	fireplace	XLVIII	17 & 18
770 sw	17.7.91			75x55cm	12.5cm	b729 c752	pit	XLII	17
771 nw	17.7.91	10r 4/8	90c.10s			b744...a729	floor	LVIII	18
772 sw	17.7.91	10yr 4/4	30c.30s.30st			fill of 770	pit fill	XLII	17
773 sw	17.7.91			16cm	3.5cm	b729 c752	posthole	XLII	17
774 sw	17.7.91	7.5yr 4/4	40s.30s.30c			fill of 773	posthole fill	XLII	17
775 se	17.7.91			100cm	10cm	b767 a787	tile wall?	XLIV	17
776 sw	17.7.91	10r 4/8	90c.10s			b729 a752	foundation	XLIV	17

777 se	17.7.91			6cm	8.5cm	b767 c787	posthole	XLIV	17
778 se	17.7.91	7.5yr 3/4	60c.40s			fill of 777	posthole fill	XLIV	17
779 se	17.7.91			22.5x12.5cm	9cm	b767 c787	posthole	XLIV	17
780 se	17.7.91	10yr 2/2	40c.30s.30chr			fill of 779	posthole fill	XLIV	17
781 se	17.7.91			28cm	3cm	b767 c787	posthole	XLIV	17
782 se	17.7.91	5y 8/2	40c.30st.30s			fill of 781	posthole fill	XLIV	17
783 se	17.7.91			11x3cm	18cm	b767 c787	posthole	XLIV	17
784 se	17.7.91	5yr 3/3	50c.40st.10s			fill of 783	posthole fill	XLIV	17
785 sw	17.7.91			11cm	12.5cm	b729 c752	posthole	XLII	17
786 sw	17.7.91	7.5yr 4/4	60c.40s			fill of 785	posthole fill	XLII	17
787 se.sw	17.7.91	10yr 4/8	40c.30st.20chr			b767 a850	old land surf	XLIII	
788 nw	17.7.91	7.5yr 4/4	60s.40c			b744....a752...	'=729	LIII	
789 sw	18.7.91	7.5yr 4/4	60s.40c			b744....a752...	'=729	LIII	
790 nw	18.7.91	7.5yr 5/8	50c.50s			b791 a837	foundation	XLVII	
791 nw	18.7.91	green	100c			b729 a790	floor	XLVII	17
792 nw	18.7.91	5yr 5/8	60c.40s			fill of 793	pit fill	XLVIII	17
793 sw	19.7.91			45cm	5cm	b729 c791?	pit	XLVIII	17
794 ne	18.7.91			14cm	8.5cm	b767 c787	posthole	XLIV	17
795 ne	18.7.91	5yr 3/4	70c.30s			fill of 794	posthole fill	XLIV	17
796 sw/nw	19.7.91	5y 7/1	60c.40s			b729 a834	old land surf	XLV	
797 sw	19.7.91			30cm	15cm	b729 c796	posthole	XLVI	17
798 sw	19.7.91	5yr 5/8	70c.30s			fill of 797	posthole fill	XLVI	17
799 se	19.7.91	10yr 4/1	90c.10s			fill of 800	slot fill	XLII	17
800 se	19.7.91			170x40cm	14.5cm	b729 c752	slot	XLII	17
801 se	19.7.91			205x35cm	24.5cm	b729 c752	slot	XLII	17
802 se	19.7.91	10yr 4/4	80c.20s			fill of 801	slot fill	XLII	17
803 se	19.7.91			150x20cm	19.5cm	b729 c752	slot	XLII	17
804 se	19.7.91	10yr 4/4	80c.20s			fill of 803	slot fill	XLII	17
805 sw	19.7.91			90x27.5cm	14.5cm	b729 c752	slot	XLII	17
806 sw	19.7.91	10yr 3/2	90c.10s			fill of 805	slot fill	XLII	17
807 sw	19.7.91			150x55cm	17cm	b729 c752	slot	XLII	17
808 sw	19.7.91	10yr 4/4	80c.20s			fill of 807	slot fill	XLII	17
809 sw	19.7.91	10yr 4/4	100plaster			fill of 801	wall plaster	XLII	17
810 ne	22.7.91	2.5y 8/2	100c			b729 a837	foundation	XLIX	
811 ne	22.7.91			70x25cm	17.5cm	b767 c787	slot	XLIV	17
812 ne	22.7.91	5yr 4/2	60c.40chr			fill of 811	slot fill	XLIV	17
813 nw	22.7.91			55x10cm	14.5cm	b729 c810	posthole	L	17
814 nw	22.7.91	5yr 4/3	80s.20st			fill of 813	posthole fill	L	17
815 nw	22.7.91			22x18cm	18cm	b729 c810	posthole	L	17

816 nw	22.7.91	5yr 5/2	60s.30st.10c			fill of 815	posthole fill	L	17
817 nw	22.7.91			27x13cm	11cm	b729 c810	posthole	L	17
818 nw	22.7.91	5yr 4/3	80s.20st			fill of 817	posthole fill	L	17
819 nw	22.7.91			79x16cm	9.5cm	b729 c810	slot	L	17
820 nw	22.7.91	5y 4/3	80st.20s			fill of 819	slot fill	L	17
821 nw	22.7.91			33x12cm	1.5cm	b729 c810	slot	L	17
822 nw	22.7.91	10yr 3/2	80s.20c			fill of 821	slot fill	L	17
823 ne	22.7.91			85x22.5cm	12cm	b729 c749	slot	LII	17
824 ne	22.7.91	5y 6/1	60s.40c			fill of 823	slot fill	LII	17
825 ne	22.7.91			80x10cm	2.5cm	b729 c749	slot	LII	17
826 ne	22.7.91	5y 6/1	60s.40c			fill of 825	slot fill	LII	17
827 se	23.7.91	10yr 6/3	70c.30s			fill of 828	slot fill	XLIV	17
828 se	23.7.91			135x22.5cm	16.5cm	b767 c787	slot	XLIV	17
829 ne	23.7.91			15cm	13.5cm	b767 c787	posthole	XLIV	17
830 ne	23.7.91	10yr 5/4	40c.40st.20s			fill of 829	posthole fill	XLIV	17
831 ne.se	24.7.91	10yr 4/6	100dung			b850 a837	midden?	XXXIX	16
832 ne.se	24.7.91			120x32.5cm	6cm	b729 c752	slot	XLII	17
833 se.ne	24.7.91	10r 3/6	50c.50g			fill of 832	slot fill	XLII	17
834 all	24.7.91	5yr 4/4	60c.40s			b752 a837	foundation	XXXVII	
835 nw	24.7.91			20cm	12.5cm	b752 c837	posthole	XXXVI	16
836 nw	24.7.91	2.5yr 4/8	60c.40g			layer	fill of 835	XXXVI	16
837 all	24.7.91	10yr 6/4	60s.40c			b834... a880	old land surf	XXXV	17
838 ne	24.7.91			55x50cm	19.5cm	b767 c787	posthole	XLIV	17
839 ne	24.7.91	10yr 4/3	60c.20g.20s			fill of 838	posthole fill	XLIV	17
840 ne	24.7.91			25x22.5cm	3cm	b729 c752	slot	XLII	17
841 ne	24.7.91	10yr 4/1	100c			fill of 840	slot fill	XLII	17
842 ne.se	24.7.91			475x50cm	17.5cm	b729 c752	slot	XLII	17
843 se	24.7.91	10yr 4/4	80c.20s			fill of 842	slot fill	XLII	17
844 se	24.7.91			30cm	17.5cm	b767 c787	posthole	XLIV	17
845 se	24.7.91	10yr 4/4	60c.40s			fill of 844	posthole fill	XLIV	17
846 se	24.7.91			65x20cm	21.5cm	b729 c799	posthole	XLII	17
847 se	24.7.91	10yr 5/3	60c.40s			fill of 846	posthole fill	XLII	17
848 se.ne	24.7.91			20x17cm	19cm	b767 c787	posthole	XLIV	17
849 se.ne	24.7.91	10yr 4/4	70c.30s			fill of 848	posthole fill	XLIV	17
850 ne	24.7.91	5y 6/6	100dung?			b767 a850	dung dump?	XL	16
851 nw	24.7.91			135x40cm	14cm	b752 c834	slot	XXXVIII	16
852 nw	24.7.91	7.5yr 5/8	60s/g.40c			fill of 851	slot fill	XXXVIII	16
853 nw	25.7.91			10x8cm	10cm	b790 c837	posthole	XXXVI	16
854 nw	25.7.91	7.5yr 5/8	70s/g.30c			fill of 853	posthole fill	XXXVI	16

855 nw	25.7.91			44x28cm	16cm	b752 c834	posthole	XXXVIII	16
856 nw	25.7.91	5y 3/2	100c			fill of 855	posthole fill	XXXVIII	16
857 nw	27.7.91			110x35cm	18cm	b796 c837	oven/furnace	XXXVI	16
858 nw	27.7.91	2.5y 8/2	50s.25c.25chr			fill of 857	oven fill	XXXVI	16
859 nw.ne	29.7.91			120x120cm	8cm	b895 c837	pit	XXXVI	16
860 ne.nw	29.7.91	10yr 6/2	80ash.20s			fill of 859	pit fill	XXXVI	16
861 nw	27.7.91			165x35cm	17cm	b790 c837	oven/furnace	XXXVI	16
862 nw	27.7.91	5y 2.5/1	60ash.20s.20c			fill of 861	oven fill	XXXVI	16
863 sw	25.7.91			25x23cm	39cm	b752 c834	posthole	XXXVIII	16
864 sw	25.7.91	7.5yr 4/4	100c			fill of 863	posthole fill	XXXVIII	16
865 sw	25.7.91			35x22cm	13cm	b796 c837	posthole	XXXVI	16
866 sw	25.7.91	10yr 5/2	90c.10s			fill of 865	posthole fill	XXXVI	16
867 sw	25.7.91			38x27cm	3.5cm	b796 c837	posthole	XXXVI	16
868 sw	25.7.91	5yr 4/4	70st.20s.10c			fill of 867	posthole fill	XXXVI	16
869 sw	25.7.91			52.5cm	55cm	b752 c834	pit	XXXVIII	16
870 sw	25.7.91	7.5yr 4/4	60c.40s			fill of 869	pit fill	XXXVIII	16
871 sw	25.7.91	10yr 5/4	60c.40tilebrik			fill of 870	pit fill	XL	16 & 17
872 ne	25.7.91			14cm	2cm	b787 c831	posthole	XL	16
873 ne	25.7.91	5yr 4/3	60dung.40s			fill of 872	posthole fill	XXXVI	16
874 ne	25.7.91			13cm	5.5cm	b790 c897	posthole	XXXVI	16
875 ne	25.7.91	10yr 8/2	100c			fill of 874	posthole fill	XXXVI	16
876 ne	25.7.91			12.5cm	9cm	b790 c837	posthole	XXXVI	16
877 ne	25.7.91	2.5yr 3/6	100g			fill of 876	posthole fill	XXXVI	16
878 sw	25.7.91	7.5yr 4/4	100s			fill of 863	posthole fill	XXXVIII	16
879 cp	26.7.91	7.5yr 4/4	70c.30s			in pot in 869	pot fill	XXXVIII	16
880 se	27.7.91	5yr 3/3	10c.30s.60tile			b837 a905...	old land surf	XXXIII	
881 nw	27.7.91			70x30cm	22cm	b670...c744...	oven/furnace	LXIII	H1
882 nw	27.7.91	5yr 6/4	60c.40s			fill of 881	oven fill	LXIII	H1
883 ne	27.7.91			200x65cm	13.5cm	b752 c834	slot	XXXVIII	16
884 ne	27.7.91	7.5yr 4/4	40c.40st.20s			fill of 883	slot fill	XXXVIII	16
885 sw.se	27.7.91	7.5yr 3/3	60s.40c			b880 a973	collapse	XXXII	14
886 ne	27.7.91			112.5cm	11cm	b790 c837	slot	XXXVI	16
887 ne	27.7.91	2.5y 6/4	60s.40c			fill of 886	slot fill	XXXVI	16
888 sw	27.7.91			20x14cm	3.5cm	b790 c837	posthole	XXXVIII	16
889 sw	27.7.91	7.5yr 4/4	60c.40s			fill of 888	posthole fill	XXXVIII	16
890 sw	27.7.91			24cm	22.5cm	b790 c837	posthole	XXXVIII	16
891 sw	27.7.91	7.5yr 4/4	60c.40s			fill of 890	posthole fill	XXXVIII	16
892 se	29.7.91			32cm	7.5cm	b752 c834	slot	XXXVIII	16
893 se	29.7.91	7.5yr 3/8	60g.30s.10c			fill of 892	slot fill	XXXVIII	16

972 se	6.8.91	2.5y 8/2	100c			b914 a961	plaster floor	XXXI	14
973 sw	6.8.91	5yr 8/1	100c			b885 a961	plaster floor	XXXI	14
974 sw.se	6.8.91	5y 8/1	100c			b912 a961	plaster floor	XXXI	14
975 sw	6.8.91	2.5yr 8/2	100c			b905 a961	plaster floor	XXXI	14
976 sw	6.8.91	8y 8/1	100c			b964 a961	plaster floor	XXXI	14
977 ne.sw	6.8.91	10yr 4/4	80st.20c			b961 a1101	old land surf	XXVIII	
978 nw	6.8.91			12cm	4cm	b880 c961	posthole	XXXI	14
979 nw	6.8.91	10yr 5/3	70c.30s			fill of 978	posthole fill	XXXI	14
980 sw	7.8.91	5y 5/3	80cdung.20s			'=961	old land surf	XXX	
981 se.sw	7.8.91	5y 5/3	80cdung.20s			'=961	old land surf	XXX	
982 se	7.8.91			8cm	9cm	b914 c972	posthole	XXXI	14
983 se	7.8.91	7.5yr 5/8	75s.25c			fill of 982	posthole fill	XXXI	14
984 se	7.8.91			10cm	14.5cm	b914 c972	posthole	XXXI	14
985 se	7.8.91	7.5yr 4/8	75s.25c			fill of 984	posthole fill	XXXI	14
986 se	7.8.91			14cm	10cm	b914 c972	posthole	XXXI	14
987 se	7.8.91	7.5yr 5/8	75s.25c			fill of 986	posthole fill	XXXI	14
988 se	7.8.91	10yr 4/3	60c.40s			fill of 989	posthole fill	XXXI	14
989 se	7.8.91			16cm	5.5cm	b914 c961	posthole	XXXI	14
990 se	8.8.91			8cm	17.5cm	b880 c912	posthole	XXXI	14
991 se	8.8.91	5yr 3/4	60st.40s			fill of 990	posthole fill	XXXI	14
992 se	8.8.91			18cm	13cm	b880 c912	posthole	XXXI	14
993 se	8.8.91	10yr 4/4	40c.35st.25s			fill of 992	posthole fill	XXXI	14
994 se	8.8.91			21x16cm	24.5cm	b880 c912	posthole	XXXI	14
995 se	8.8.91	7.5yr 4/4	40s.40c.20st			fill of 994	posthole fill	XXXI	14
996 se	8.8.91			20x15cm	30.5cm	b880 c912	posthole	XXXI	14
997 se	8.8.91	7.5yr 4/4	40c.40s.40st			fill of 996	posthole fill	XXXI	14
998 se	8.8.91			6cm	8cm	b880 c915	posthole	XXXI	14
999 se	8.8.91	7.5yr 4/4	60c.40s			fill of 998	posthole fill	XXXI	14
1000 se	8.8.91			8cm	4cm	b880 c915	posthole	XXXI	14
1001 se	8.8.91	5yr 4/4	80g.20s			fill of 1000	posthole fill	XXXI	14
1002 sw	8.8.91			12cm	7cm	b880 c915	posthole	XXXI	14
1003 sw	8.8.91	10yr 4/4	60c.40st			fill of 1002	posthole fill	XXXI	14
1004 sw	8.8.91			8cm	1cm	b880 c1045	posthole	XXXI	14
1005 sw	8.8.91	10yr 3/8	50c.50s			fill of 1004	posthole fill	XXXI	14
1006 se	8.8.91			9cm	11cm	b880 c915	posthole	XXXI	14
1007 se	8.8.91	10yr 3/8	50s.50c			fill of 1006	posthole fill	XXXI	14
1008 sw	8.8.91			6cm	5cm	b880 c915	posthole	XXXI	14
1009 se	8.8.91	10yr 4/4	60s.40s			fill of 1008	posthole fill	XXXI	14
1010 se	8.8.91			10cm	8cm	b880 c915	posthole	XXXI	14

1011 se	8.8.91	2.5yr 5/3	60c.40s			fill of 1010	posthole fill	XXXI	14
1012 se	8.8.91			12x10cm	31cm	b880 c912	posthole	XXXI	14
1013 se	8.8.91	10yr 5/6	40s.30c.30st			fill of 1013	posthole fill	XXXI	14
1014 nw	8.8.91			11x8cm	2cm	b880 c961	posthole	XXXI	14
1015 nw	8.8.91	2.5yr 4/6	50s.50c			fill of 1014	posthole fill	XXXI	14
1016 nw.sw	8.8.91			7x5cm	2cm	b880 c961	posthole	XXXI	14
1017 nw.sw	8.8.91	10yr 5/4	60c.40s			fill of 1016	posthole fill	XXXI	14
1018 sw	8.8.91			8x5cm	2cm	b880 c961	posthole	XXXI	14
1019 sw	8.8.91	10yr 5/3	60c.40s			fill of 1019	posthole fill	XXXI	14
1020 sw	8.8.91			11cm	12cm	b880 c963	posthole	XXXI	14
1021 sw	8.8.91	10yr 4/2	70c.30s			fill of 1020	posthole fill	XXXI	14
1022 se	8.8.91			10cm	13cm	b880 c915	posthole	XXXI	14
1023 se	8.8.91	10yr 5/6	30st.70s			fill of 1022	posthole fill	XXXI	14
1024 sw	8.8.91			10cm	2cm	b880 c915	posthole	XXXI	14
1025 sw	8.8.91	10yr 5/6	60st.40s			fill of 1024	posthole fill	XXXI	14
1026 sw	8.8.91			7cm	2cm	b880 c915	posthole	XXXI	14
1027 sw	8.8.91	10yr 5/6	60st.40s			fill of 1026	posthole fill	XXXI	14
1028 sw	8.8.91			7cm	2cm	b880 c915	posthole	XXXI	14
1029 sw	8.8.91	10yr 5/3	60st.40s			fill of 1028	posthole fill	XXXI	14
1030 sw	8.8.91			11cm	8cm	b880 c915	posthole	XXXI	14
1031 sw	8.8.91	10yr 4/3	60c.40s			fill of 1030	posthole fill	XXXI	14
1032 sw	8.8.91			13cm	28.5cm	b880 c959	posthole	XXXI	14
1033 sw	8.8.91	10yr 5/2	50c.50s			fill of 1032	posthole fill	XXXI	14
1034 nw	8.8.91			10cm	9cm	b880 c961	posthole	XXXI	14
1035 nw	8.8.91	10yr 3/2	80st/s.20c			fill of 1034	posthole fill	XXXI	14
1036 nw	8.8.91			12cm	9cm	b880 c961	posthole	XXXI	14
1037 nw	8.8.91	10yr 3/2	80st.20s			fill of 1036	posthole fill	XXXI	14
1038 se	8.8.91			10cm	12.5cm	b880 c915	posthole	XXXI	14
1039 se	8.8.91	10yr 5/3	60st.40s			fill of 1038	posthole fill	XXXI	14
1040 sw	8.8.91			11cm	4cm	b880 c963	posthole	XXXI	14
1041 sw	8.8.91	10yr 4/3	80st.20s			fill of 1040	posthole fill	XXXI	14
1042 sw	8.8.91			30cm	16cm	b880 c963	posthole	XXXI	14
1043 sw	8.8.91	10yr 5/6	60s.40s			fill of 1043	posthole fill	XXXI	14
1044 se	8.8.91			89.5cm	26.5cm	b914 c972	pit	XXXI	14
1045 se	8.8.91	10yr 7/1	60c.40s			fill of 1044	pit fill	XXXI	14
1046 sw	8.8.91			20x10cm	24.5cm	b880 c963	posthole	XXXI	14
1047 sw	8.8.91	10yr 3/4	60s.40c			fill of 1046	posthole fill	XXXI	14
1048 sw	8.8.91			10cm	9.5cm	b880 c963	posthole	XXXI	14
1049 sw	8.8.91	10yr 7/1	60c.40s			fill of 1048	posthole fill	XXXI	14

1050 sw	9.8.91			12cm	15cm	b880 c963	posthole	XXXI	I4
1051 sw	9.8.91	2.5yr 7/4	70c.30s			fill of 1050	posthole fill	XXXI	I4
1052 sw	9.8.91			8cm	6cm	b880 c963	posthole	XXXI	I4
1053 sw	9.8.91	2.5yr 3/6	60c.40s			fill of 1052	posthole fill	XXXI	I4
1054 nw	9.8.91			13x11cm	9cm	b880 c961	posthole	XXXI	I4
1055 nw	9.8.91	10yr 5.2	80st.20c			fill of 1054	posthole fill	XXXI	I4
1056 ne	9.8.91			11cm	3.5cm	b880 c912	posthole	XXXI	I4
1057 ne	9.8.91	10yr 4/2	60c.20s.20st			fill of 1056	posthole fill	XXXI	I4
1058 se	9.8.91			9x7cm	13.5cm	b880 c912	posthole	XXXI	I4
1059 se	9.8.91	10yr 4/4	60st.40s			fill of 1058	posthole fill	XXXI	I4
1060 se	9.8.91			5cm	3.5cm	b880 c912	posthole	XXXI	I4
1061 se	9.8.91	5yr 4/4	80g.20c			fill of 1060	posthole fill	XXXI	I4
1062 se	9.8.91			16x13cm	13cm	b914 c972	posthole	XXXI	I4
1063 se	9.8.91	7.5yr 5/6	60s.40c			fill of 1062	posthole fill	XXXI	I4
1064 se	9.8.91			8cm	13.5cm	b880 b915	posthole	XXXI	I4
1065 se	9.8.91	10yr 5/4	60st.40s			fill of 1064	posthole fill	XXXI	I4
1066 sw	9.8.91			8cm	4.5cm	b880 c907	posthole	XXXI	I4
1067 sw	9.8.91	10yr 4/4	80c.20s			fill of 1066	posthole fill	XXXI	I4
1068 ne	9.8.91			8cm	5cm	b880 c907	posthole	XXXI	I4
1069 ne	9.8.91	10yr 4/4	80c.20s			fill of 1068	posthole fill	XXXI	I4
1070 sw	9.8.91			7cm	4cm	b880 c907	posthole	XXXI	I4
1071 sw	9.8.91	10yr 4/4	80c.20s			fill of 1070	posthole fill	XXXI	I4
1072									
1073									
1074 nw	9.8.91			17x10cm	5cm	b880 c961	posthole	XXXI	I4
1075 nw	9.8.91	7.5yr 6/8	50c.50s/g			fill of 1074	posthole fill	XXXI	I4
1076 nw	9.8.91			10cm	5.5cm	b880 c907	posthole	XXXI	I4
1077 nw	9.8.91	10yr 4/4	60c.40s			fill of 1076	posthole fill	XXXI	I4
1078 nw	9.8.91			13cm	3cm	b880 c907	posthole	XXXI	I4
1079 nw	9.8.91	10yr 4/4	60c.40s			fill of 1078	posthole fill	XXXI	I4
1080 nw	9.8.91			8cm	5.5cm	b880 c907	posthole	XXXI	I4
1081 nw	9.8.91	10yr 6/2	70c.30s			fill of 1080	posthole fill	XXXI	I4
1082									
1083 se	16.8.91			30cm	10cm	b880 c946	posthole	XXXI	I4
1084 se	16.8.91	10yr 5/8	60c.40s			fill of 1083	posthole fill	XXXI	I4
1085									
1086									
1087									
1088 se	16.8.91			17cm	14cm	b880 c912	posthole	XXXI	I4

1089 se	16.8.91	10yr 3/6	60c.40s			fill of 1088	posthole fill	XXXI	14
1090									
1091									
1092									
1093 ne	20.8.91			200x75cm		b1101 a1125	tile scatter	XXIV	11
1094 sw	16.8.91	14cm	18.5cm	14cm	18.5cm	b964 c961	posthole	XXXI	14
1095 sw	16.8.91	10yr 7/3	79s.30c			fill of 1094	posthole fill	XXXI	14
1096 ne	16.8.91			125x50cm	24cm	b961 c977	oven/furnace	XXIX	13
1097 ne	16.8.91	10yr 4/4	80s.20c			fill of 1096	oven fill	XXIX	13
1098 se	16.8.91	10yr 5/2	40c.40st.20s			fill of 908	posthole fill	XXXI	14
1099 ne	17.8.91			48x42cm	18cm	cut in 1101	pit	XXVII	12
1100 ne	17.8.91	5yr 3/1	100c			fill of 1099	pit fill	XXVII	12
1101 all	17.8.91	10yr 4/1	100c			b977 a1124	old land surf	XXVI	
1102 ne	17.8.91			85x70cm	7cm	b977 c1101	pit	XXVII	12
1103 ne	17.8.91	10yr 5/1	50chr.20s.30c			fill of 1102	pit fill	XXVII	12
1104 ne	17.8.91			16cm	16.5cm	b977 c1101	posthole	XXVII	12
1105 ne	17.8.91	2.5y 6/4	60c.40s			fill of 1104	posthole fill	XXVII	12
1106 ne	17.8.91	2.5y 8/0	100c			fill of 896	well fill	XXXVI	16
1107 ne	17.8.91			160x35cm	5.5cm	b977 c1101	gully/slot	XXVII	12
1108 ne	17.8.91	10yr 5/1	60c.40s			fill of 1107	gully fill	XXVII	12
1109 nw	17.8.91			50cm	23cm	b977 c1101	oven/furnace	XXVII	12
1110 nw	17.8.91	10yr 5/2	60c.40s			fill of 1109	oven fill	XXVII	12
1111 nw	17.8.91			75x47cm	23cm	b977 c1101	stokehole	XXVII	12
1112 nw	17.8.91	10yr 5/2	60c.40s			fill of 1111	stokehole fill	XXVII	12
1113 nw	17.8.91		100chr			fill of 1109	oven fill	XXVII	12
1114 sw	17.8.91			85x30cm	8.5cm	b977 c1101	pit	XXVII	12
1115 sw	17.8.91	5yr 2.5/1	90chr.10s			fill of 1114	pit fill	XXVII	12
1116 sw	17.8.91			55x35cm	4.5cm	b977 c1101	pit	XXVII	12
1117 sw	17.8.91	5yr 2.5/1	90chr.10s			fill of 1116	pit fill	XXVII	12
1118 sw	17.8.91			175x100cm	50cm	b961 c977	pit	XXIX	13
1119 sw	17.8.91	7.5yr 5/2	60c.40s			fill of 1118	pit fill	XXIX	13
1120 nw	17.8.91	7.5yr 5/0	100chr			fill of 1111	stokehole fill	XXVII	12
1121 ne	17.8.91	2.5y 8/0	100c			fill of 896	well fill	XXXVI	16
1122 sw	19.8.91			80x20cm	22cm	b1101 c1125	slot	XXIV	11
1123 sw	19.8.91	5yr 3/4	60s.40c			fill of 1122	slot fill	XXIV	11
1124 se	19.8.91	5yr 4/4	70s.30c			b1101 a1125	lense	XXV	
1125 all	19.8.91	10yr 7/1	60c.40s			b1124 a1174	old land surf	XXIII	
1126 se	19.8.91			54x50cm	25.5cm	b1101 c1125	pit	XXIV	11
1127 se	19.8.91	10yr 5/8	70c.30s			fill of 1126	pit fill	XXIV	11

1128 se	19.8.91			45x35cm	10cm	b1101 c1125	pit	XXIV	11
1129 se	19.8.91	10yr 4/6	69s.40c			fill of 1128	pit fill	XXIV	11
1130 sw	19.8.91			35cm	33.5cm	b1101 c1125	posthole	XXIV	11
1131 sw	19.8.91	10yr 4/3	60c.40s			fill of 1130	posthole fill	XXIV	11
1132 sw	19.8.91			54cm	22.5cm	b1101 c1125	pit	XXIV	11
1133 sw	19.8.91	10yr 4/3	60c.40s			fill of 1132	pit fill	XXIV	11
1134 se	19.8.91			18x15cm	2.5cm	b1101 c1125	posthole	XXIV	11
1135 se	19.8.91	7.5yr 4/4	60c.40s			fill of 1134	posthole fill	XXIV	11
1136 se	19.8.91			12.5cm	10cm	b1101 c1125	posthole	XXIV	11
1137 se	19.8.91	2.5yr 4/6	80g.20c			fill of 1136	posthole fill	XXIV	11
1138 se	19.8.91			13x10cm	16.5cm	b1101 c1125	posthole	XXIV	11
1139 se	19.8.91	2.5yr 4/6	80g.20c			fill of 1138	posthole fill	XXIV	11
1140 se	19.8.91			12cm	19.5cm	b1101 c1125	posthole	XXIV	11
1141 se	19.8.91	2.5y 4/4	60st.20c.20s			fill of 1140	posthole fill	XXIV	11
1142 nw	20.8.91			50cm	5cm	b977 c1101	pit	XXVII	12
1143 nw	20.8.91	2.5y 2/0	80chr.20c			fill of 1142	pit fill	XXVII	12
1144 ne	20.8.91			48x42cm	5cm	b1101 c1125	pit	XXIV	11
1145 ne	20.8.91	2.5y 4/4	100c			fill of 1144	pit fill	XXIV	11
1146 ne	20.8.91			50cm	11.5cm	b1101 c1125	pit	XXIV	11
1147 ne	20.8.91	2.5y 6/8	100c			fill of 1146	pit fill	XXIV	11
1148 ne	20.8.91			120x70cm	27cm	b1101 c1125	oven/furnace	XXIV	11
1149 ne	20.8.91	10yr 6/1	60c.10s.30chr			fill of 1148	oven fill	XXIV	11
1150 ne	20.8.91			40cm	10cm	b1101 c1149	pit	XXIV	11
1151 ne	20.8.91	10yr 7/8	100s			fill of 1150	pit fill	XXIV	11
1152 sw.nw	20.8.91			85cm	22cm	b1101 c1125	oven/furnace	XXIV	11
1153 sw.ne	20.8.91	10yr 6/1	50chr.50c			fill of 1152	oven fill	XXIV	11
1154 se	20.8.91			10cm	7cm	b1101 c1125	posthole	XXIV	11
1155 se	20.8.91	7.5yr 4/4	80g.20c			fill of 1154	posthole fill	XXIV	11
1156 sw	20.8.91			10cm	9cm	b1101 c1125	posthole	XXIV	11
1157 sw	20.8.91	7.5yr 4/4	80c.20st			fill of 1156	posthole fill	XXIV	11
1158 sw	20.8.91			10cm	30cm	b1101 c1125	posthole	XXIV	11
1159 sw	20.8.91	5yr 4/1	60st.40c			fill of 1158	posthole fill	XXIV	11
1160 sw	20.8.91			13cm	14cm	b1101 c1125	posthole	XXIV	11
1161 sw	20.8.91	5yr 4/1	60st.20c.20s			fill of 1160	posthole fill	XXIV	11
1162 se	20.8.91			10cm	17cm	b1101 c1125	posthole	XXIV	11
1163 se	20.8.91	2.5y 3/2	40c.40st.20s			fill of 1162	posthole fill	XXIV	11
1164 se	20.8.91	5yr 1/8	100c			b1124 a1125	dump/floor?	XXIV	11
1165 nw	20.8.91			52cm	15cm	b1101 c1125	pit	XXIV	11
1166 nw	20.8.91	10yr 3/2	20s.80c			fill of 1165	pit fill	XXIV	11

1167 ne	20.8.91			35cm	12.5cm	b1101 c1125	pit	XXIV	I1
1168 ne	20.8.91	2.5yr 6/2	60c.40s			fill of 1167	pit fill	XXIV	I1
1169 se	20.8.91			24cm	29cm	b1124 c1125	posthole	XXIV	I1
1170 se	20.8.91	10yr 4/2	40c.40st.20s			fill of 1169	posthole fill	XXIV	I1
1171 sw	20.8.91	black	organic			b1101 c1125	organic wall?	XXIV	I1
1172 sw.se	21.8.91		100s			b1125 a1175	old land surf	XXII	
1173 nw.ne	21.8.91	black	100chr			fill of 1148	oven fill	XXIV	I1
1174 ne.nw	21.8.91	10yr 6/4	60c.40s			b1125 a1175	old land surf	XX	
1175 all	21.8.91	7.5yr 3/4	65c.35s			b1174 a1293	old land surf	XVIII	
1176 nw	22.8.91			35x30cm	52cm	b1125 c1174	posthole	XXI	J5
1177 nw	22.8.91	10yr 4/4	60st.40s			fill of 1176	posthole fill	XXI	J5
1178 nw	22.8.91			15cm	11cm	b1125 c1174	posthole	XXI	J5
1179 nw	22.8.91	10yr 4/4	60st.40s			fill of 1178	posthole fill	XXI	J5
1180 nw	22.8.91			9cm	2.5cm	b1125 c1174	posthole	XXI	J5
1181 nw	22.8.91	10yr 4/4	60st.40s			fill of 1180	posthole fill	XXI	J5
1182 nw	22.8.91			8cm	12cm	b1125 c1174	posthole	XXI	J5
1183 nw	22.8.91	10yr 4/4	40st.40c.20s			fill of 1182	posthole fill	XXI	J5
1184 nw	22.8.91			11cm	5cm	b1125 c1174	posthole	XXI	J5
1185 nw	22.8.91	10yr 5/2	60st.40s			fill of 1184	posthole fill	XXI	J5
1186 nw	22.8.91			9cm	9.5cm	b1125 c1174	posthole	XXI	J5
1187 nw	22.8.91	10yr 4/4	60st.40s			fill of 1184	posthole fill	XXI	J5
1188 nw	22.8.91			10cm	22.5cm	b1125 c1174	posthole	XXI	J5
1189 nw	22.8.91	10yr 4/4	40st.40c.20s			fill of 1188	posthole fill	XXI	J5
1190 nw	22.8.91			110cm	27cm	b1125 c1174	pit	XXI	J5
1191 nw	22.8.91	10yr 5/2	80c.20s			fill of 1190	pit fill	XXI	J5
1192 nw	22.8.91			12cm	0.5cm	b1125 c1174	posthole	XXI	J5
1193 nw	22.8.91	10yr 2/1	100st			fill of 1192	posthole fill	XXI	J5
1194 nw	22.8.91			120x1.05cm	4.5cm	b1125 c1174	pit	XXI	J5
1195 nw	22.8.91	10yr 6/3	50c.50s			fill of 1194	pit fill	XXI	J5
1196 nw	22.8.91			37x20cm	20cm	b1125 c1174	posthole	XXI	J5
1197 nw	22.8.91	10yr 5/3	70st.30s			fill of 1196	posthole fill	XXI	J5
1198 nw	22.8.91			10cm	3.5cm	b1125 c1174	posthole	XXI	J5
1199 nw	22.8.91	10yr 5/3	60c.40s			fill of 1198	posthole fill	XXI	J5
1200 nw	22.8.91			10cm	33.5cm	b1125 c1174	posthole	XXI	J5
1201 nw	22.8.91	10yr 5/3	60st.40s			fill of 1200	posthole fill	XXI	J5
1202 ne	22.8.91			11cm	17.5cm	b1125 c1174	posthole	XXI	J5
1203 ne	22.8.91	10yr 6/2	40s.60c			fill of 1202	posthole fill	XXI	J5
1204 ne	22.8.91			14cm	8cm	b1125 c1174	posthole	XXI	J5
1205 ne	22.8.91	10yr 6/2	40s.60c			fill of 1204	posthole fill	XXI	J5

1206 ne	22.8.91	2.5yr 6/2	40s.60c			fill of 896	well fill	XXXVI	I6
1207 ne	22.8.91			130x100cm	39.5cm	b1125 c1174	pit	XXI	J5
1208 ne	22.8.91	10yr 3/3	80s.20c			fill of 1207	pit fill	XXI	J5
1209 ne	22.8.91			10cm	5.5cm	b1125 c1174	posthole	XXI	J5
1210 nw	22.8.91	10yr 5/4	60c.40s			fill of 1209	posthole fill	XXI	J5
1211 nw	22.8.91			11x7cm	11cm	b1172 c1195	posthole	XXI	J5
1212 nw	22.8.91	2.5yr 5/2	80s.20c			fill of 1211	posthole fill	XXI	J5
1213 sw	22.8.91	2.5yr 6/2	100st			fill of 1118	pit fill		
1214 sw	22.8.91	5y 7/6	100st			fill of 1118	pit fill		
1215 sw	23.8.91			145cm	55.5cm	b1172 c1175	pit	XIX	J4
1216 sw	23.8.91	10yr 5/3	55st.45c			fill of 1215	pit fill	XIX	J4
1217 sw	23.8.91			20x17cm	7cm	b1125 c1175	posthole	XIX	J4
1218 sw	23.8.91	10yr 2/1	95chr.5st			fill of 1217	posthole fill	XIX	J4
1219 sw	23.8.91			20x10cm	7.5cm	b1125 c1175	posthole	XIX	J4
1220 sw	23.8.91	10yr 5/2	60c.40s			fill of 1219	posthole fill	XIX	J4
1221 sw	23.8.91			10cm	28.5cm	b1125 c1175	posthole	XIX	J4
1222 sw	23.8.91	10yr 5/4	40c.40st.20s			fill of 1221	posthole fill	XIX	J4
1223 sw	23.8.91			11cm	27.5cm	b1125 c1175	posthole	XIX	J4
1224 sw	23.8.91	10yr 4/3	60s.40c			fill of 1223	posthole fill	XIX	J4
1225 sw	23.8.91			11cm	30.5cm	b1125 c1216	posthole	XIX	J4
1226 sw	23.8.91	5yr 4/3	60c.40s			fill of 1225	posthole fill	XIX	J4
1227 se	23.8.91			110x50cm	10cm	b1172 c1175	posthole	XIX	J4
1228 se	23.8.91	2.5yr 4/2	60s.40c			fill of 1227	posthole fill	XIX	J4
1229 nw	23.8.91			20cm	28cm	b1174 c1175	posthole	XIX	J4
1230 nw	23.8.91	2.5yr 4/4	60c.40s			fill of 1229	posthole fill	XIX	J4
1231 sw	23.8.91			30cm	27cm	b1125 c1175	posthole	XIX	J4
1232 sw	23.8.91	10yr 5/3	60st.40s			fill of 1231	posthole fill	XIX	J4
1233 nw	23.8.91			27cm	20cm	b1174 c1175	posthole	XIX	J4
1234 nw	23.8.91	10yr 5/3	60st.40s			fill of 1233	posthole fill	XIX	J4
1235 nw	23.8.91			115x40cm	32cm	b1174 c1175	oven/furnace	XIX	J4
1236 nw	24.8.91	10yr 7/1	60c.35chr.5s			fill of 1235	oven fill	XIX	J4
1237 nw	23.8.91			20cm	16.5cm	b1174 c1175	posthole	XIX	J4
1238 nw	23.8.91	10yr 3/4	40s.60c			fill of 1237	posthole fill	XIX	J4
1239 nw	23.8.91			13cm	9cm	b1174 c1175	posthole	XIX	J4
1240 nw	23.8.91	10yr 3/4	60st.40s			fill of 1239	posthole fill	XIX	J4
1241 nw	23.8.91			17x12cm	14cm	b1174 c1175	posthole	XIX	J4
1242 nw	23.8.91	10yr 3/4	60c.40s			fill of 1241	posthole fill	XIX	J4
1243 nw	23.8.91			42x30cm	43cm	b1174 c1175	posthole	XIX	J4
1244 nw	23.8.91	10yr 4/3	60c.40s			fill of 1243	posthole fill	XIX	J4

1245 nw	23.8.91			15cm	11cm	b1174 c1175	posthole	XIX	J4
1246 nw	23.8.91	2.5yr 4/4	60c.40s			fill of 1245	posthole fill	XIX	J4
1247 nw	23.8.91			23cm	31cm	b1174 c1175	posthole	XIX	J4
1248 nw	23.8.91	2.5yr 4/4	60c.40s			fill of 1247	posthole fill	XIX	J4
1249 nw	23.8.91			18cm	24cm	b1174 c1175	posthole	XIX	J4
1250 nw	23.8.91	2.5yr 4/4	60c.40s			fill of 1249	posthole fill	XIX	J4
1251 ne	23.8.91			12cm	20.5cm	b1174 c1175	posthole	XIX	J4
1252 ne	23.8.91	10yr 5/4	60c.40s			fill of 1251	posthole fill	XIX	J4
1253 ne	23.8.91			10cm	14cm	b1174 c1175	posthole	XIX	J4
1254 ne	23.8.91	10yr 5/4	60c.40s			fill of 1253	posthole fill	XIX	J4
1255 nw	23.8.91			13x9cm	3cm	b1174 c1175	posthole	XIX	J4
1256 nw	23.8.91	10yr 4/2	60st.40s			fill of 1255	posthole fill	XIX	J4
1257 nw	23.8.91			45x22cm	36cm	b1174 c1175	posthole	XIX	J4
1258 nw	23.8.91	10yr 4/4	60c.40s			fill of 1257	posthole fill	XIX	J4
1259 nw	23.8.91			15cm	24cm	b1174 c1175	posthole	XIX	J4
1260 nw	23.8.91	10yr 3/3	60c.40s			fill of 1259	posthole fill	XIX	J4
1261 nw	23.8.91			12.5cm	9.5cm	b1174 c1175	posthole	XIX	J4
1262 nw	23.8.91	10yr 3/2	60c.40s			fill of 1261	posthole fill	XIX	J4
1263 nw	23.8.91			14cm	15cm	b1174 c1175	posthole	XIX	J4
1264 nw	23.8.91	10yr 3/2	55c.45s			fill of 1263	posthole fill	XIX	J4
1265 nw	23.8.91			15cm	21.5cm	b1174 c1175	posthole	XIX	J4
1266 nw	23.8.91	5yr 8/4	60c.40s			fill of 1265	posthole fill	XIX	J4
1267 nw	23.8.91			23x20cm	32.5cm	b1174 c1175	posthole	XIX	J4
1268 nw	23.8.91	10yr 4/3	70c.30s			fill of 1267	posthole fill	XIX	J4
1269 nw	23.8.91			30x15cm	24cm	b1174 c1175	posthole	XIX	J4
1270 nw	23.8.91	10yr 4/3	40st.40c.20s			fill of 1269	posthole fill	XIX	J4
1271 nw	23.8.91			14cm	20cm	b1174 c1175	posthole	XIX	J4
1272 nw	23.8.91	10yr 3/4	60c.40s			fill of 1271	posthole fill	XIX	J4
1273 nw	23.8.91			12cm	15cm	b1174 c1175	posthole	XIX	J4
1274 nw	23.8.91	10yr 3/4	60c.40s			fill of 1273	posthole fill	XIX	J4
1275 nw	23.8.91			7cm	12cm	b1174 c1296	posthole	XIX	J4
1276 nw	23.8.91	10yr 4/4	60c.40s			fill of 1275	posthole fill	XIX	J4
1277 nw	23.8.91			5cm	15.5cm	b1174 c1296	posthole	XIX	J4
1278 nw	23.8.91	10yr 4/4	40st.40c.20s			fill of 1277	posthole fill	XIX	J4
1279 nw	23.8.91			9cm	13cm	b1174 c1175	posthole	XIX	J4
1280 nw	23.8.91	10yr 5/3	55c.45s			fill of 1279	posthole fill	XIX	J4
1281 nw	23.8.91			8cm	14cm	b1174 c1175	posthole	XIX	J4
1282 nw	23.8.91	10yr 4/4	40st.40c.20s			fill of 1281	posthole fill	XIX	J4
1283 nw	23.8.91			12cm	19cm	b1174 c1175	posthole	XIX	J4

1284 nw	23.8.91	10yr 4/4	40st.40c.20s			fill of 1283	posthole fill	XIX	J4
1285 nw	23.8.91			14cm	12cm	b1174 c1175	posthole	XIX	J4
1286 nw	23.8.91	10yr 5/3	70c.30s			fill of 1285	posthole fill	XIX	J4
1287 nw	23.8.91			10cm	16cm	b1174 c1175	posthole	XIX	J4
1288 nw	23.8.91	10yr 4/3	60c.40s			fill of 1287	posthole fill	XIX	J4
1289 se	23.8.91			230x150cm	46.5cm	b1172 c1175	well	XIX	J4
1290 se	23.8.91	10yr 3/2	60c.40s			fill of 1289	well fill	XIX	J4
1291 nw	24.8.91	10yr 2/1	100chr			fill of 1235	oven fill	XIX	J4
1292 ne	24.8.91	10yr 4/4	85c.15s			fill of 1289	well fill	XIX	J4
1293 all	24.8.91	10yr 4/4	60c.40s			b1175 a1407	old land surf	XVI	
1294 se	24.8.91	10yr 3/3	70c.30s			fill of 1289	well fill	XXXVI	I6
1295 nw	24.8.91			20cm	20cm	b1174 c1175	posthole	XIX	J4
1296 nw	24.8.91	10yr 4/4	40st.40c.20s			fill of 1295	posthole fill	XIX	J4
1297 nw	26.8.91			9cm	15cm	b1175 c1293	posthole	XVII	J3
1298 nw	26.8.91	2.5yr 5/4	60c.40s			fill of 1297	posthole fill	XVII	J3
1299 nw	26.8.91			9cm	9cm	b1175 c1293	posthole	XVII	J3
1300 nw	26.8.91	7.5yr 3/4	60s.40c			fill of 1299	posthole fill	XVII	J3
1301 nw	26.8.91			27x10cm	10.5cm	b1175 c1293	pit?	XVII	J3
1302 nw	26.8.91	10yr 5/3	60c.40s			fill of 1301	pit? fill	XVII	J3
1303 nw	26.8.91			17cm	7cm	b1175 c1293	posthole	XVII	J3
1304 nw	26.8.91	10yr 5/3	60c.40s			fill of 1303	posthole fill	XVII	J3
1305 nw	26.8.91			17cm	33cm	b1175 c1293	posthole	XVII	J3
1306 nw	26.8.91	10yr 5/3	80s.20c			fill of 1305	posthole fill	XVII	J3
1307 nw	26.8.91			20cm	6cm	b1175 c1293	posthole	XVII	J3
1308 nw	26.8.91	10yr 4/7	60s.40c			fill of 1307	posthole fill	XVII	J3
1309 nw	26.8.91			9cm	23.5cm	b1175 c1293	posthole	XVII	J3
1310 nw	26.8.91	10yr 4/4	70c.30s			fill of 1309	posthole fill	XVII	J3
1311 nw	26.8.91			20cm	8cm	b1175 c1293	posthole	XVII	J3
1312 nw	26.8.91	10yr 4/3	40st.40c.20s			fill of 1311	posthole fill	XVII	J3
1313 nw	26.8.91			12x10cm	15.5cm	b1175 c1293	posthole	XVII	J3
1314 nw	26.8.91	10yr 4/3	40st.40c.20s			fill of 1313	posthole fill	XVII	J3
1315 nw	27.8.91			60cm	85cm	b1175 c1293	pit	XVII	J3
1316 nw	27.8.91	2.5yr 3/2	80c.20s			fill of 1315	pit fill	XVII	J3
1317 nw	26.8.91			13cm	11.5cm	b1175 c1293	posthole	XVII	J3
1318 nw	26.8.91	10yr 4/3	60c.40s			fill of 1317	posthole fill	XVII	J3
1319 sw	26.8.91			10cm	12cm	b1175 c1293	posthole	XVII	J3
1320 sw	26.8.91	10yr 4/3	20c.20st.20s			fill of 1319	posthole fill	XVII	J3
1321 nw	26.8.91			10cm	9cm	b1175 c1293	posthole	XVII	J3
1322 nw	26.8.91	10yr 4/4	60c.40s			fill of 1322	posthole fill	XVII	J3

1323 nw	26.8.91			11cm	12.5cm	b1175 c1293	posthole	XVII	J3
1324 nw	26.8.91	10yr 3/3	70c.30s			fill of 1323	posthole fill	XVII	J3
1325 nw	26.8.91			12cm	14.5cm	b1175 c1293	posthole	XVII	J3
1326 nw	26.8.91	10yr 3/3	60c.40s			fill of 1325	posthole fill	XVII	J3
1327 ne	26.8.91			10cm	14.5cm	b1175 c1293	posthole	XVII	J3
1328 ne	26.8.91	10yr 4/3	40st.40c.20s			fill of 1327	posthole fill	XVII	J3
1329 nw	26.8.91			10cm	13cm	b1175 c1293	posthole	XVII	J3
1330 nw	26.8.91	10yr 4/3	40st.40s.20c			fill of 1329	posthole fill	XVII	J3
1331 nw	26.8.91			10cm	18.5cm	b1175 c1293	posthole	XVII	J3
1332 nw	26.8.91	10yr 4/3	40st.40c.20s			fill of 1331	posthole fill	XVII	J3
1333 nw	26.8.91			9cm	22.5cm	b1175 c1293	posthole	XVII	J3
1334 nw	26.8.91	10yr 4/2	60st.40c			fill of 1333	posthole fill	XVII	J3
1335 sw	26.8.91			9cm	7.5cm	b1175 c1293	posthole	XVII	J3
1336 sw	26.8.91	10yr 4/2	80c.20s			fill of 1335	posthole fill	XVII	J3
1337 sw	26.8.91			5cm	9cm	b1175 c1293	posthole	XVII	J3
1338 sw	26.8.91	10yr 4/3	40st.40c.20s			fill of 1337	posthole fill	XVII	J3
1339 sw	26.8.91			29cm	50.5cm	b1175 c1372	posthole	XVII	J3?
1340 sw	26.8.91	10yr 4/4	80c.20s			fill of 1339	posthole fill	XVII	J3?
1341 sw	26.8.91			50x37.5cm	17cm	b1175 c1293	oven/furnace	XVII	J3
1342 sw	26.8.91	10yr 3/1	80c.20s			fill of 1341	fill of oven	XVII	J3
1343 sw	26.8.91			10cm	21.5cm	b1175 c1293	posthole	XVII	J3
1344 sw	26.8.91	10yr 4/4	60s.20c.20st			fill of 1343	posthole fill	XVII	J3
1345 sw	26.8.91			20cm	34cm	b1175 c1293	posthole	XVII	J3
1346 sw	26.8.91	10yr 3/6	60c.40s			fill of 1345	posthole fill	XVII	J3
1347 sw	26.8.91			20cm	28.5cm	b1175 c1293	posthole	XVII	J3
1348 sw	26.8.91	10yr 4/4	40c.35st.25s			fill of 1347	posthole fill	XVII	J3
1349 sw	26.8.91			15cm	14.5cm	b1175 c1372	posthole	XVII	J3
1350 sw	26.8.91	10yr 4/3	40st.40c.20s			fill of 1349	posthole fill	XVII	J3
1351 sw	26.8.91			12.5cm	8.5cm	b1175 c1293	posthole	XVII	J3
1352 sw	26.8.91	10yr 4/3	60c.40s			fill of 1351	posthole fill	XVII	J3
1353 se	26.8.91			11cm	4cm	b1175 c1293	posthole	XVII	J3
1354 se	26.8.91	10yr 4/4	60st.40c			fill of 1353	posthole fill	XVII	J3
1355 sw	26.8.91			12cm	18.5cm	b1175 c1293	posthole	XVII	J3
1356 sw	26.8.91	10yr 4/3	60c.40s			fill of 1355	posthole fill	XVII	J3
1357 sw	26.8.91			13x10cm	13cm	b1175 c1293	posthole	XVII	J3
1358 sw	26.8.91	10yr 4/4	40st.40c.20s			fill of 1357	posthole fill	XVII	J3
1359 sw	26.8.91			21cm	42.5cm	b1175 c1403	posthole	XVII	J3?
1360 sw	26.8.91	10yr 4/4	60c.40s.tile			fill of 1359	posthole fill	XVII	J3?
1361 sw	26.8.91			55x40cm	32cm	b1175 c1293	plt	XVII	J3

1362 sw	26.8.91	10yr 7/1	80ash.20c			fill of 1361	pit fill	XVII	J3
1363 sw	26.8.91			10cm	21cm	b1175 c1293	posthole	XVII	J3
1364 sw	26.8.91	10yr 3/4	40c.40st.40s			fill of 1363	posthole fill	XVII	J3
1365 se	26.8.91			12.5cm	18cm	b1175 c1293	posthole	XVII	J3
1366 se	26.8.91	10yr 3/3	40st.40c.20s			fill of 1365	posthole fill	XVII	J3
1367	26.8.91			15cm	18cm	b1175 c1293	posthole	XVII	J3
1368	26.8.91	10yr 3/6	80c.20s			fill of 1367	posthole fill	XVII	J3
1369	26.8.91			12cm	8cm	b1175 c1293	posthole	XVII	J3
1370	26.8.91	10yr 4/3	40st.40c.40s			fill of 1369	posthole fill	XVII	J3
1371 sw	26.8.91			125cm	85cm	b1175 c1293	burial pit?	XVII	J3
1372 sw	26.8.91	5yr 5/8	60s.40c			fill of 1371	burial? fill	XVII	J3
1373 se	26.8.91			18cm	13cm	b1175 c1293	posthole	XVII	J3
1374 sw	26.8.91	10yr 4/3	50c.30s.20st			fill of 1373	posthole fill	XVII	J3
1375 se	26.8.91			14cm	9.5cm	b1175 c1293	posthole	XVII	J3
1376 se	26.8.91	10yr 4/3	60s.40c			fill of 1375	posthole fill	XVII	J3
1377 se	26.8.91			12cm	47.5cm	b1175 c1293	posthole	XVII	J3
1378 se	26.8.91	10yr 4/3	75s.25c			fill of 1377	posthole fill	XVII	J3
1379 se	26.8.91			8cm	24cm	b1175 c1293	posthole	XVII	J3
1380 se	26.8.91	10yr 4/4	80c.20s			fill of 1379	posthole fill	XVII	J3
1381 sw	26.8.91	10yr 6/4	60s.40c			fill of 1371	burial? fill	XVII	J3
1382 sw	26.8.91	10yr 3/4	60c.40s			fill of 1371	burial? fill	XVII	J3
1383 ne	26.8.91	10yr 4/3	100st			fill of 896	well fill	XXXVI	I6
1384 nw	26.8.91			10x8cm	12cm	b1175 c1293	posthole	XVII	J3
1385 nw	26.8.91	10yr 5/3	60c.40s			fill of 1384	posthole fill	XVII	J3
1386 se	26.8.91			12cm	9.5cm	b1175 c1293	posthole	XVII	J3
1387 se	26.8.91	5yr 5/2	80c.20s			fill of 1386	posthole fill	XVII	J3
1388 se	27.8.91			15cm	23cm	b1175 c1293	posthole	XVII	J3
1389 se	27.8.91	7.5yr 4/3	70s.30c			fill of 1388	posthole fill	XVII	J3
1390 se	26.8.91			62x45cm	8cm	b1175 c1293	pit	XVII	J3
1391 se	26.8.91	7.5yr 3/4	40g.30c.30s			fill of 1390	pit fill	XVII	J3
1392 se	26.8.91			9.5cm	30cm	b1175 c1293	posthole	XVII	J3
1393 se	26.8.91	7.5yr 4/2	60c.40s			fill of 1392	posthole fill	XVII	J3
1394 ne	26.8.91	10yr 4/3	100st			fill of 896	well fill	XXXVI	I6
1395 sw	26.8.91			11cm	24cm	b1175 c1293	posthole	XVII	J3
1396 sw	26.8.91	7.5yr 4/2	50c.50s			fill of 1395	posthole fill	XVII	J3
1397 sw	27.8.91			9cm	4cm	b1175 c1293	posthole	XVII	J3
1398 sw	27.8.91	10yr 4/4	60s.40c			fill of 1397	posthole fill	XVII	J3
1399 ne	27.8.91	10yr 3/4	80s.20c			fill of 896	well fill	XXXVI	I6
1400 se	27.8.91			10cm	10cm	b13917c1390	posthole	XVII	J37

1401 se	27.8.91	10yr 4/4	60c.40s			fill of 1400	posthole fill	XVII	J3
1402 sw	27.8.91			140x112.5cm	81.5cm	b1175 c1293	pit	XVII	J3
1403 sw	27.8.91	10yr 5/3	65c.35s			fill of 1402	fill of pit	XVII	J3
1404 sw	27.8.91	5yr 8/1	100ash			fill of 1371	burial fill	XVII	J3
1405 nw	28.8.91			13cm	37cm	b1293 c1407	posthole	XV	J2
1406 nw	28.8.91	2.5yr 4/4	90s.10c			fill of 1405	posthole fill	XV	J2
1407 all	28.8.91	10yr 4/4	60c.25st.15s			b1293 a1496	old land surf	XIV	
1408 nw	28.8.91			20cm	33cm	b1293 c1407	posthole	XV	J2
1409 nw	28.8.91	2.5yr 5/6	100s			fill of 1408	posthole fill	XV	J2
1410 nw	28.8.91			20cm	38cm	b1293 c1407	posthole	XV	J2
1411 nw	28.8.91	2.5yr 4/4	100s			fill of 1410	posthole fill	XV	J2
1412 nw	28.8.91			20cm	40cm	b1293 c1407	posthole	XV	J2
1413 nw	28.8.91	10yr 4/6	80s.20c			fill of 1412	posthole fill	XV	J2
1414 sw	28.8.91			14cm	38.5cm	b1293 c1407	posthole	XV	J2
1415 sw	28.8.91	10yr 3/4	90s.10c			fill of 1414	posthole fill	XV	J2
1416 ne	28.8.91			15cm	21.5cm	b1293 c1407	posthole	XV	J2
1417 ne	28.8.91	7.5yr 3/4	90c.10s			fill of 1416	posthole fill	XV	J2
1418 nw	28.8.91			28x19cm	18cm	b1293 c1407	posthole	XV	J2
1419 nw	28.8.91	10yr 4/2	60c.40st			fill of 1418	posthole fill	XV	J2
1420 nw	28.8.91			10cm	19cm	b1293 c1407	posthole	XV	J2
1421 nw	28.8.91	2.5yr 4/4	100s			fill of 1420	posthole fill	XV	J2
1422 nw	28.8.91			15cm	8cm	b1293 c1407	posthole	XV	J2
1423 nw	28.8.91	10yr 4/4	60c.40s			fill of 1422	posthole fill	XV	J2
1424 nw	28.8.91			15cm	39cm	b1293 c1407	posthole	XV	J2
1425 nw	28.8.91	10yr 3/4	90s.10c			fill of 1424	posthole fill	XV	J2
1426 nw	28.8.91			19x15cm	7cm	b1293 c1407	posthole	XV	J2
1427 nw	28.8.91	10yr 4/4	60c.40s			fill of 1426	posthole fill	XV	J2
1428 nw	28.8.91			14cm	52cm	b1293 c1407	posthole	XV	J2
1429 nw	28.8.91	5yr 4/3	80c.20s			fill of 1428	posthole fill	XV	J2
1430 nw	28.8.91			12cm	14cm	b1293 c1407	posthole	XV	J2
1431 nw	28.8.91	10yr 3/2	50c.50s			fill of 1431	posthole fill	XV	J2
1432 ne	28.8.91			24x15cm	12cm	b1293 c1407	posthole	XV	J2
1433 ne	28.8.91	10yr 3/6	60c.40s			fill of 1432	posthole fill	XV	J2
1434 ne	28.8.91			19x17.5cm	18.5cm	b1293 c1407	posthole	XV	J2
1435 ne	28.8.91	10yr 3/3	60c.40s			fill of 1434	posthole fill	XV	J2
1436 ne	28.8.91			12cm	13cm	b1293 c1407	posthole	XV	J2
1437 ne	28.8.91	10yr 3/3	60s.40c			fill of 1436	posthole fill	XV	J2
1438 ne	28.8.91			10cm	13.5cm	b1293 c1407	posthole	XV	J2
1439 ne	28.8.91	10yr 2/2	40s.40st.20c			fill of 1438	posthole fill	XV	J2

1440 ne	28.8.91			13cm	10cm	b1293 c1407	posthole	XV	J2
1441 ne	28.8.91	10yr 4/4	60c.40s			fill of 1440	posthole fill	XV	J2
1442 ne	28.8.91			16x13cm	13.5cm	b1293 c1407	posthole	XV	J2
1443 ne	28.8.91	10yr 3/3	50c.30st.20s			fill of 1442	posthole fill	XV	J2
1444 ne	28.8.91			20x18cm	20.5cm	b1293 c1407	posthole	XV	J2
1445 ne	28.8.91	10yr 3/4	50c.50s			fill of 1444	posthole fill	XV	J2
1446 ne	28.8.91			10cm	3cm	b1293 c1407	posthole	XV	J2
1447 ne	28.8.91	7.5yr 3/4	80c.20s			fill of 1446	posthole fill	XV	J2
1448 ne	28.8.91			7cm	6cm	b1293 c1407	posthole	XV	J2
1449 ne	28.8.91	7.5yr 3/2	80c.20s			fill of 1448	posthole fill	XV	J2
1450 nw	28.8.91			19cm	41.2cm	b1293 c1407	old posthole?	XV	J2
1451 nw	28.8.91	10yr 4/2	90s.10st			fill of 1450	posthole fill	XV	J2
1452 sw	28.8.91			14cm	11.5cm	b1293 c1407	posthole	XV	J2
1453 sw	28.8.91	10yr 4/4	60s.40c			fill of 1452	posthole fill	XV	J2
1454 sw	28.8.91			10cm	7cm	b1293 c1407	posthole	XV	J2
1455 sw	28.8.91	10yr 3/6	60c.40s			fill of 1454	posthole fill	XV	J2
1456 sw	28.8.91			13cm	19.5cm	b1293 c1407	posthole	XV	J2
1457 sw	28.8.91	5yr 3/4	80c.20s			fill of 1456	posthole fill	XV	J2
1458 sw	28.8.91			20cm	52cm	b1293 c1407	posthole	XV	J2
1459 sw	28.8.91	12.5yr 5/4	60s.40c			fill of 1458	posthole fill	XV	J2
1460 sw	28.8.91			21cm	7.5cm	b1293 c1407	old posthole?	XV	J2
1461 nw	28.8.91	10yr 3/3	90s.10c			fill of 1460	posthole fill	XV	J2
1462 sw	28.8.91			59x25cm	52cm	b1293 c1407	slot?	XV	J2
1463 sw	28.8.91	10yr 3/3	60c.40s			fill of 1462	slot? fill	XV	J2
1464 sw	28.8.91			30x15cm	7cm	b1293 c1407	posthole	XV	J2
1465 sw	28.8.91	10yr 4/6	100s			fill of 1464	posthole fill	XV	J2
1466 sw	28.8.91			9cm	3cm	b1293 c1407	posthole	XV	J2
1467 sw	28.8.91	10yr 3/4	55c.45s			fill of 1466	posthole fill	XV	J2
1468 se	28.8.91			22cm	28cm	b1293 c1407	posthole	XV	J2
1469 se	28.8.91	10yr 4/4	95s.5c			fill of 1468	posthole fill	XV	J2
1470 se	28.8.91			13cm	12cm	b1293 c1407	posthole	XV	J2
1471 se	28.8.91	10yr 3/6	60c.40s			fill of 1470	posthole fill	XV	J2
1472 se	28.8.91					b1175 c1293	pit	XVII	J3
1473 se	28.8.91	10yr 4/3	60s.40c			fill of 1472	pit fill	XVII	J3
1474 se	28.8.91	10yr 4/4	60s.40c			fill of 1472	pit fill	XVII	J3
1475 se	28.8.91	5yr 4/3	90c.10s			fill of 1472	pit fill	XVII	J3
1476 se	28.8.91	5yr 4/3	80c.10st.10s			fill of 1472	pit fill	XVII	J3
1477 sw	28.8.91			28x24cm	18cm	b1293 c1407	posthole	XV	J2
1478 sw	28.8.91	7.5yr 3/3	79c.30s			fill of 1477	posthole fill	XV	J2

1479 sw	28.8.91			14cm	36cm	b1293 c1407	posthole	XV	J2
1480 sw	28.8.91	10yr 3/8	70c.30s			fill of 1479	posthole fill	XV	J2
1481 se	28.8.91			17cm	13cm	b1293 c1407	posthole	XV	J2
1482 se	28.8.91	5yr 3/3	90s.10c			fill of 1481	posthole fill	XV	J2
1483 sw	28.8.91	7.5yr 3/4	80c.20s			fill of 1371	pit fill	XVII	J3
1484 ne	28.8.91					b1293 c1407	pit	XV	J2
1485 ne	28.8.91	10yr 6/3	90c.10st			fill of 1484	pit fill	XV	J2
1486 ne	28.8.91			95cm	32.5cm	b1293 c1407	pit	XV	J2
1487 ne	28.8.91	10yr 7/1	100c			fill of 1486	pit fill	XV	J2
1488 nw	29.8.91				27.5cm	b1293 c1407	pit	XV	J2
1489 nw	29.8.91	10yr 6/1	100st			fill of 1488	pit fill	XV	J2
1490 se	29.8.91			60cm	36.5cm	b1293 c1407	pit	XV	J2
1491 se	29.8.91	10yr 3/4	90c.10s			fill of 1490	pit fill	XV	J2
1492 se	29.8.91			12cm	13.5cm	b1293 c1407	posthole	XV	J2
1493 se	29.8.91	10yr 3/8	80s.40c			fill of 1492	posthole fill	XV	J2
1494									
1495 ne	29.8.91	10yr 6/3	90c.10st			fill of 1484	pit fill	XV	J2
1496 all	29.8.91	5yr 3/2	40c.35st.25s			b1407 a1615	old land surf	XII	
1497 ne	2.9.91			12cm	4cm	b1407 c1496	posthole	XIII	J1
1498 ne	2.9.91	7.5yr 3/4	70c.30s			fill of 1497	posthole fill	XIII	J1
1499 ne	2.9.91			15cm	11cm	b1407 c1496	posthole	XIII	J1
1500 ne	2.9.91	7.5yr 3/4	65c.35s			fill of 1499	posthole fill	XIII	J1
1501 nw	2.9.91			10cm	10cm	b1407 c1496	posthole	XIII	J1
1502 nw	2.9.91	7.5yr 3/4	55c.45s			fill of 1501	posthole fill	XIII	J1
1503 ne	2.9.91			20x15cm	3.5cm	b1407 c1496	posthole	XIII	J1
1504 ne	2.9.91	7.5yr 3/4	79c.30s			fill of 1503	posthole fill	XIII	J1
1505 nw	2.9.91			10cm	6cm	b1407 c1496	posthole	XIII	J1
1506 nw	2.9.91	10yr 3/8	60c.40s			fill of 1505	posthole fill	XIII	J1
1507 nw	2.9.91			13cm	9cm	b1407 c1496	posthole	XIII	J1
1508 nw	2.9.91	10yr 3/8	60c.40s			fill of 1507	posthole fill	XIII	J1
1509 nw	2.9.91			10cm	10cm	b1407 c1496	posthole	XIII	J1
1510 nw	2.9.91	10yr 3/8	55c.45s			fill of 1509	posthole fill	XIII	J1
1511 nw	2.9.91			11cm	5.1cm	b1407 c1496	posthole	XIII	J1
1512 nw	2.9.91	10yr 3/4	55c.45s			fill of 1511	posthole fill	XIII	J1
1513 nw	2.9.91			15x7cm	4.5cm	b1407 c1496	posthole	XIII	J1
1514 nw	2.9.91	10yr 3/4	55c.45s			fill of 1513	posthole fill	XIII	J1
1515 nw	2.9.91			12cm	21cm	b1407 c1496	posthole	XIII	J1
1516 nw	2.9.91	10yr 5/8	100s			fill of 1515	posthole fill	XIII	J1
1517 nw	2.9.91			9cm	9cm	b1407 c1496	posthole	XIII	J1

1518 nw	2.9.91	10yr 3/4	65c.35s			fill of 1517	posthole fill	XIII	J1
1519 nw	2.9.91			13cm	6cm	b1407 c1496	posthole	XIII	J1
1520 nw	2.9.91	10yr 3/4	60c.40s			fill of 1519	posthole fill	XIII	J1
1521 nw	2.9.91			10cm	6.5cm	b1407 c1496	posthole	XIII	J1
1522 nw	2.9.91	10yr 3/6	60c.40s			fill of 1521	posthole fill	XIII	J1
1523 nw	2.9.91			10cm	7.5cm	b1407 c1496	posthole	XIII	J1
1524 nw	2.9.91	10yr 3/4	60c.40s			fill of 1523	posthole fill	XIII	J1
1525 nw	2.9.91			12cm	6cm	b1407 c1496	posthole	XIII	J1
1526 nw	2.9.91	10yr 3/4	65c.35s			fill of 1525	posthole fill	XIII	J1
1527 nw	2.9.91			12cm	11cm	b1407 c1496	posthole	XIII	J1
1528 nw	2.9.91	10yr 3/4	70c.30s			fill of 1527	posthole fill	XIII	J1
1529 nw	2.9.91			13cm	21.5cm	b1407 c1496	posthole	XIII	J1
1530 nw	2.9.91	5yr 3/2	65c.35s			fill of 1529	posthole fill	XIII	J1
1531 nw	2.9.91			14cm	22cm	b1407 c1496	posthole	XIII	J1
1532 nw	2.9.91	10yr 3/4	65c.35s			fill of 1531	posthole fill	XIII	J1
1533 nw	2.9.91			12cm	6.5cm	b1407 c1496	posthole	XIII	J1
1534 nw	2.9.91	10yr 3/4	70c.30s			fill of 1533	posthole fill	XIII	J1
1535 nw	2.9.91			14x11cm	8cm	b1407 c1496	posthole	XIII	J1
1536 nw	2.9.91	10yr 3/4	70c.30s			fill of 1535	posthole fill	XIII	J1
1537 nw	2.9.91			22x16cm	14cm	b1407 c1496	posthole	XIII	J1
1538 nw	2.9.91	10yr 3/3	65c.35s			fill of 1537	posthole fill	XIII	J1
1539 nw	2.9.91			19cm	26cm	b1407 c1496	posthole	XIII	J1
1540 nw	2.9.91	10yr 3/4	70c.30s			fill of 1539	posthole fill	XIII	J1
1541 nw	2.9.91			12cm	26cm	b1407 c1496	posthole	XIII	J1
1542 nw	2.9.91	10yr 3/6	80s.20c			fill of 1541	posthole fill	XIII	J1
1543 nw	2.9.91			12cm	9cm	b1407 c1496	posthole	XIII	J1
1544 nw	2.9.91	10yr 3/4	65c.35s			fill of 1543	posthole fill	XIII	J1
1545 nw	2.9.91			20x12cm	6cm	b1407 c1496	posthole	XIII	J1
1546 nw	2.9.91	10yr 3/4	65c.35s			fill of 1545	posthole fill	XIII	J1
1547 nw	2.9.91			15cm	6.5cm	b1407 c1496	posthole	XIII	J1
1548 nw	2.9.91	10yr 4/4	60c.40s			fill of 1547	posthole fill	XIII	J1
1549 nw	2.9.91			10cm	11cm	b1407 c1496	posthole	XIII	J1
1550 nw	2.9.91	10yr 3/4	65c.35s			fill of 1549	posthole fill	XIII	J1
1551 nw	2.9.91			15x12cm	9cm	b1407 c1496	posthole	XIII	J1
1552 nw	2.9.91	10yr 3/6	65c.35s			fill of 1551	posthole fill	XIII	J1
1553 nw	2.9.91			9cm	8cm	b1407 c1496	posthole	XIII	J1
1554 nw	2.9.91	10yr 3/3	70c.30s			fill of 1553	posthole fill	XIII	J1
1555 nw	2.9.91			9cm	5cm	b1407 c1496	posthole	XIII	J1
1556 nw	2.9.91	10yr 3/4	70c.30s			fill of 1555	posthole fill	XIII	J1

1557 nw	2.9.91			14x11cm	22.2cm	b1407 c1496	posthole	XIII	J1
1558 nw	2.9.91	10yr 3/4	70c.30s			fill of 1557	posthole fill	XIII	J1
1559 nw	2.9.91			10cm	14.5cm	b1407 c1496	posthole	XIII	J1
1560 nw	2.9.91	10yr 3/3	40st.40c.20s			fill of 1559	posthole fill	XIII	J1
1561 nw	2.9.91			10cm	14cm	b1407 c1496	posthole	XIII	J1
1562 nw	2.9.91	10yr 3/3	40st.40c.20s			fill of 1561	posthole fill	XIII	J1
1563 nw	2.9.91			15cm	8cm	b1407 c1496	posthole	XIII	J1
1564 nw	2.9.91	10yr 3/3	40st.40c.20s			fill of 1563	posthole fill	XIII	J1
1565 nw	2.9.91			20cm	20.5cm	b1407 c1496	posthole	XIII	J1
1566 nw	2.9.91	10yr 3/6	40st.40c.20s			fill of 1565	posthole fill	XIII	J1
1567 nw	2.9.91			15x10cm	4cm	b1407 c1496	posthole	XIII	J1
1568 nw	2.9.91	10yr 3/3	40st.40c.20s			fill of 1567	posthole fill	XIII	J1
1569 nw	2.9.91			15cm	6cm	b1407 c1496	posthole	XIII	J1
1570 nw	2.9.91	10yr 3/4	40st.40c.20s			fill of 1569	posthole fill	XIII	J1
1571 sw	2.9.91			27x15cm	35.5cm	b1407 c1496	posthole	XIII	J1
1572 sw	2.9.91	10yr 3/3	70s.30st			fill of 1571	posthole fill	XIII	J1
1573 sw	2.9.91			28x15cm	11cm	b1407 c1496	posthole	XIII	J1
1574 sw	2.9.91	10yr 3/6	60c.40s			fill of 1573	posthole fill	XIII	J1
1575 sw	2.9.91			13cm	6.5cm	b1407 c1496	posthole	XIII	J1
1576 sw	2.9.91	10yr 3/4	70c.30s			fill of 1575	posthole fill	XIII	J1
1577 sw	2.9.91			13cm	11cm	b1407 c1496	posthole	XIII	J1
1578 sw	2.9.91	10yr 3/4	65c.35s			fill of 1577	posthole fill	XIII	J1
1579 sw	2.9.91			10cm	7cm	b1407 c1496	posthole	XIII	J1
1580 sw	2.9.91	10yr 3/3	60c.40s			fill of 1579	posthole fill	XIII	J1
1581 sw	2.9.91			8cm	10cm	b1407 c1496	posthole	XIII	J1
1582 sw	2.9.91	10yr 3/4	70c.30s			fill of 1581	posthole fill	XIII	J1
1583 sw	2.9.91			13cm	12cm	b1407 c1496	posthole	XIII	J1
1584 nw	2.9.91	10yr 3/4	65c.35s			fill of 1583	posthole fill	XIII	J1
1585 sw	2.9.91			11cm	8cm	b1407 c1496	posthole	XIII	J1
1586 sw	2.9.91	10yr 3/4	70c.30s			fill of 1585	posthole fill	XIII	J1
1587 sw	2.9.91			7cm	5cm	b1407 c1496	posthole	XIII	J1
1588 sw	2.9.91	10yr 3/3	55c.45s			fill of 1587	posthole fill	XIII	J1
1589 sw	2.9.91			20cm	5.5cm	b1407 c1496	posthole	XIII	J1
1590 sw	2.9.91	10yr 6/8	100s			fill of 1589	posthole fill	XIII	J1
1591 sw	2.9.91			11cm	19.5cm	b1407 c1496	posthole	XIII	J1
1592 sw	2.9.91	10yr 3/4	70c.30s			fill of 1591	posthole fill	XIII	J1
1593 sw	2.9.91			9cm	7cm	b1407 c1496	posthole	XIII	J1
1594 sw	2.9.91	10yr 3/4	70c.30s			fill of 1593	posthole fill	XIII	J1
1595 sw	2.9.91			9cm	11cm	b1407 c1496	posthole	XIII	J1

1596 sw	2.9.91	10yr 3/4	65c.35s			fill of 1595	posthole fill	XIII	J1
1597 se	2.9.91			28x22cm	11cm	b1407 c1496	posthole	XIII	J1
1598 se	2.9.91	10yr 3/3	70c.30s			fill of 1597	posthole fill	XIII	J1
1599 se	2.9.91			12x10cm	4.5cm	b1407 c1496	posthole	XIII	J1
1600 se	2.9.91	10yr 3/4	70c.30s			fill of 1599	posthole fill	XIII	J1
1601 se	2.9.91			12cm	11cm	b1407 c1496	posthole	XIII	J1
1602 se	2.9.91	10yr 4/4	60c.40s			fill of 1601	posthole fill	XIII	J1
1603 se	2.9.91			20cm	14cm	b1407 c1496	posthole	XIII	J1
1604 se	2.9.91	10yr 5/8	80s.20c			fill of 1603	posthole fill	XIII	J1
1605 se	2.9.91			15cm	7cm	b1407 c1496	posthole	XIII	J1
1606 se	2.9.91	10yr 3/4	65c.35s			fill of 1605	posthole fill	XIII	J1
1607 sw	2.9.91			19x10cm	11cm	b1407 c1496	posthole	XIII	J1
1608 sw	2.9.91	10yr 4/6	55s.45c			fill of 1607	posthole fill	XIII	J1
1609 se	2.9.91			10cm	17cm	b1407 c1496	posthole	XIII	J1
1610 se	2.9.91	10yr 3/4	65c.35s			fill of 1609	posthole fill	XIII	J1
1611 se	2.9.91			22cm	34cm	b1407 c1496	posthole	XIII	J1
1612 se	2.9.91	10yr 3/4	65c.35s			fill of 1611	posthole fill	XIII	J1
1613 se	2.9.91			13x11cm	4.5cm	b1407 c1496	posthole	XIII	J1
1614 se	2.9.91	10yr 5/2	70s.30c			fill of 1613	posthole fill	XIII	J1
1615 se/ne	5.9.91	10yr 2/2	100c			b1496 a1616	redeposited?	X	
1616 all	4.9.91	7.5yr 3/4	70st.30s			b1496 a1714	old land surf	VIII	
1617 se/ne	4.9.91	10yr 2/2	100c			'=1615	redeposited?	X	
1618 ne	4.9.91			13cm	5cm	b1615 c1616	posthole	IX	K3
1619 ne	4.9.91	10yr 3/4	65st.35s			fill of 1618	posthole fill	IX	K3
1620 ne	4.9.91			8cm	5cm	b1615 c1616	posthole	IX	K3
1621 ne	4.9.91	7.5yr 3/2	60st.40s			fill of 1620	posthole fill	IX	K3
1622 ne	4.9.91			9cm	5cm	b1615 c1616	posthole	IX	K3
1623 ne	4.9.91	10yr 4/4	85c.15s			fill of 1622	posthole fill	IX	K3
1624 ne	4.9.91			16cm	31cm	b1615 c1616	posthole	IX	K3
1625 ne	4.9.91	10yr 5/4	100c			fill of 1624	posthole fill	IX	K3
1626 ne	4.9.91			9cm	5cm	b1615 c1616	posthole	IX	K3
1627 ne	4.9.91	10yr 3/4	85c.15s			fill of 1626	posthole fill	IX	K3
1628 ne	4.9.91			12x9cm	12.5cm	b1615 c1616	posthole	IX	K3
1629 ne	4.9.91	7.5yr 3/4	70st.30s			fill of 1628	posthole fill	IX	K3
1630 ne	4.9.91			19x15cm	20cm	b1615 c1616	posthole	IX	K3
1631 ne	4.9.91	7.5yr 5/8	80s.20c			fill of 1630	posthole fill	IX	K3
1632 ne	4.9.91			12cm	4cm	b1615 c1616	posthole	IX	K3
1633 ne	4.9.91	5yr 3/3	75st.25s			fill of 1632	posthole fill	IX	K3
1634 ne	4.9.91			18x9cm	13cm	b1615 c1616	posthole	IX	K3

1635 ne	4.9.91	7.5yr 5/8	80s.20c			fill of 1634	posthole fill	IX	K3
1636 ne	4.9.91			16cm	13cm	b1615 c1616	posthole	IX	K3
1637 ne	4.9.91	7.5yr 3/4	60st.40s			fill of 1636	posthole fill	IX	K3
1638 ne	4.9.91			6cm	3cm	b1615 c1616	posthole	IX	K3
1639 ne	4.9.91	5yr 3/3	60st.40s			fill of 1638	posthole fill	IX	K3
1640 ne	4.9.91			14cm	11cm	b1615 c1616	posthole	IX	K3
1641 ne	4.9.91	5yr 4/6	65s.35st			fill of 1640	posthole fill	IX	K3
1642 ne	4.9.91			17cm	12cm	b1615 c1616	posthole	IX	K3
1643 ne	4.9.91	7.5yr 3/2	65st.35s			fill of 1642	posthole fill	IX	K3
1644 ne	4.9.91			14x8cm	3cm	b1615 c1616	posthole	IX	K3
1645 ne	4.9.91	7.5yr 3/4	65st.35s			fill of 1644	posthole fill	IX	K3
1646 ne	4.9.91			12cm	4cm	b1615 c1616	posthole	IX	K3
1647 ne	4.9.91	7.5yr 3/2	75st.25s			fill of 1646	posthole fill	IX	K3
1648 ne	4.9.91			7cm	3cm	b1615 c1616	posthole	IX	K3
1649 nw	4.9.91	7.5yr 3/4	80st.20s			fill of 1648	posthole fill	IX	K3
1650 nw	4.9.91			10cm	46cm	b1615 c1616	posthole	IX	K3
1651 nw	4.9.91	10yr 3/4	80s.20c			fill of 1650	posthole fill	IX	K3
1652 nw	4.9.91			10cm	6.5cm	b1615 c1616	posthole	IX	K3
1653 nw	4.9.91	7.5yr 3/4	80c.20s			fill of 1652	posthole fill	IX	K3
1654 nw	4.9.91			13cm	12.5cm	b1615 c1616	posthole	IX	K3
1655 nw	4.9.91	10yr 6/6	100s			fill of 1654	posthole fill	IX	K3
1656 nw	4.9.91			14cm	25cm	b1615 c1616	posthole	IX	K3
1657 nw	4.9.91	10yr 3/6	90s.10c			fill of 1656	posthole fill	IX	K3
1658 se	5.9.91			13cm	23.5cm	b1615 c1616	old posthole?	IX	K3
1659 se	5.9.91	10yr 3/4	75c.25s			fill of 1658	posthole fill	IX	K3
1660 nw	5.9.91			10cm	4.5cm	b1615 c1616	posthole	IX	K3
1661 nw	5.9.91	7.5yr 4/4	60c.40s			fill of 1660	posthole fill	IX	K3
1662 se	5.9.91			16x12cm	24.5cm	b1496 c1615	posthole	XI	K3?
1663 se	5.9.91	7.5yr 4/2	70c.30s			fill of 1662	posthole fill	XI	K3?
1664 nw	5.9.91			11cm	8cm	b1615 c1616	posthole	IX	K3
1665 nw	5.9.91	10yr 3/4	80c.20s			fill of 1664	posthole fill	IX	K3
1666 nw	5.9.91			19cm	12cm	b1615 c1616	posthole	IX	K3
1667 nw	5.9.91	7.5yr 4/2	80c.20s			fill of 1666	posthole fill	IX	K3
1668 nw	5.9.91			9cm	5cm	b1615 c1616	posthole	IX	K3
1669 nw	5.9.91	10yr 3/4	60c/40s			fill of 1668	posthole fill	IX	K3
1670 se	5.9.91			13cm	7cm	b1496 c1615	posthole	XI	K3?
1671 se	5.9.91	10yr 4/6	60c.40s			fill of 1670	posthole fill	XI	K3?
1672 nw	5.9.91			13cm	18.5cm	b1615 c1616	posthole	IX	K3
1673 nw	5.9.91	7.5yr 3/4	80s.20c			fill of 1672	posthole fill	IX	K3

1674 nw	5.9.91			7cm	3cm	b1615 c1616	posthole	IX	K3
1675 nw	5.9.91	10yr 3/4	75c.25s			fill of 1674	posthole fill	IX	K3
1676 nw	5.9.91			19x16cm	3cm	b1615 c1616	posthole	IX	K3
1677 nw	5.9.91	10yr 3/4	75c.25s			fill of 1676	posthole fill	IX	K3
1678 nw	5.9.91			6cm	4cm	b1615 c1616	posthole	IX	K3
1679 nw	5.9.91	7.5yr 3/4	70c.30s			fill of 1678	posthole fill	IX	K3
1680 nw	5.9.91			15cm	23cm	b1615 c1616	posthole	IX	K3
1681 nw	5.9.91	10yr 8/8	100s			fill of 1681	posthole fill	IX	K3
1682 nw	5.9.91			13x10cm	11cm	b1615 c1616	posthole	IX	K3
1683 nw	5.9.91	7.5yr 3/4	75st.25s			fill of 1682	posthole fill	IX	K3
1684 nw	5.9.91			11cm	9.5cm	b1615 c1616	posthole	IX	K3
1685 nw	5.9.91	7.5yr 3/4	70st.30s			fill of 1684	posthole fill	IX	K3
1686									
1687									
1688 ne	5.9.91			35x15cm	8cm	b1615 c1616	posthole	IX	K3
1689 ne	5.9.91	5yr 3/2	55st.45c			fill of 1688	posthole fill	IX	K3
1690 ne	5.9.91			23x13cm	7.5cm	b1615 c1616	posthole	IX	K3
1691 ne	5.9.91	7.5yr 4/4	60st.40s			fill of 1690	posthole fill	IX	K3
1692 ne	5.9.91			10cm	10cm	b1615 c1616	posthole	IX	K3
1693 ne	5.9.91	7.5yr 3/2	60c.40st			fill of 1692	posthole fill	IX	K3
1694 ne	5.9.91			10cm	4.5cm	b1615 c1616	posthole	IX	K3
1695 ne	5.9.91	7.5yr 4/4	50c.50s			fill of 1694	posthole fill	IX	K3
1696 ne	5.9.91			8x5cm	5cm	b1615 c1616	posthole	IX	K3
1697 ne	5.9.91	10yr 3/4	70c.30s			fill of 1696	posthole fill	IX	K3
1698 ne	5.9.91			10cm	6.5cm	b1615 c1616	posthole	IX	K3
1699 ne	5.9.91	7.5yr 3/2	70st.30s			fill of 1698	posthole fill	IX	K3
1700 ne	5.9.91			25x18cm	23cm	b1615 c1616	posthole	IX	K3
1701 ne	5.9.91	7.5yr 3/2	90c.10s			fill of 1700	posthole fill	IX	K3
1702 ne	5.9.91			25cm	10cm	b1615 c1616	old posthole?	IX	K3
1703 ne	5.9.91	7.5yr 3/4	80s.20c			fill of 1702	posthole fill	IX	K3
1704 ne	5.9.91			8x5cm	6.5cm	b1615 c1616	posthole	IX	K3
1705 ne	5.9.91	7.5yr 3/4	45st.55c			fill of 1704	posthole fill	IX	K3
1706 ne	5.9.91			11cm	7cm	b1615 c1616	posthole	IX	K3
1707 ne	5.9.91	7.5yr 4/4	90c.10s			fill of 1706	posthole fill	IX	K3
1708 nw	5.9.91			8cm	3cm	b1615 c1616	posthole	IX	K3
1709 nw	5.9.91	7.5yr 3/4	70c.30s			fill of 1708	posthole fill	IX	K3
1710 nw	5.9.91			12cm	20cm	b1615 c1616	posthole	IX	K3
1711 nw	5.9.91	2.5y 6/4	100s			fill of 1710	posthole fill	IX	K3
1712 nw	5.9.91			12cm	10cm	b1615 c1616	posthole	IX	K3

1713 nw	6.9.91	2.5y 5/6	100s			fill of 1712	posthole fill	IX	K3
1714 all	6.9.91	7.5yr 4/4	60c.40s			b1616 a1811	old land surf	VI	
1715 nw	6.9.91			15cm	6.5cm	b1616 c1714	posthole	VII	K2
1716 nw	6.9.91	10y 3/4	70c.30s			fill of 1715	posthole fill	VII	K2
1717 nw	6.9.91			16cm	18.5cm	b1616 c1714	posthole	VII	K2
1718 nw	6.9.91	10yr 6/6	100s			fill of 1717	posthole fill	VII	K2
1719 nw	6.9.91			16cm	7.5cm	b1616 c1714	posthole	VII	K2
1720 nw	6.9.91	10yr 4/6	50s.50g			fill of 1719	posthole fill	VII	K2
1721 nw	6.9.91			15x10cm	3.5cm	b1616 c1714	posthole	VII	K2
1722 nw	6.9.91	10yr 4/4	70c.30s			fill of 1721	posthole fill	VII	K2
1723 nw	6.9.91			19cm	12cm	b1616 c1714	posthole	VII	K2
1724 nw	6.9.91	10yr 3/4	65c.35s			fill of 1723	posthole fill	VII	K2
1725 nw	6.9.91			15cm	8cm	b1616 c1714	posthole	VII	K2
1726 nw	6.9.91	10yr 3/4	60c.40s			fill of 1725	posthole fill	VII	K2
1727 nw	6.9.91			12cm	6cm	b1616 c1714	posthole	VII	K2
1728 nw	6.9.91	10yr 3/4	70c.30s			fill of 1727	posthole fill	VII	K2
1729 nw	6.9.91			11cm	6cm	b1616 c1714	posthole	VII	K2
1730 nw	6.9.91	7.5yr 3/4	60c.40s/g			fill of 1729	posthole fill	VII	K2
1731 nw	6.9.91			8cm	5cm	b1616 c1714	posthole	VII	K2
1732 nw	6.9.91	10yr 3/4	65c.35s			fill of 1731	posthole fill	VII	K2
1733 nw	6.9.91			6cm	5cm	b1616 c1714	posthole	VII	K2
1734 nw	6.9.91	10yr 3/6	65c.35s			fill of 1733	posthole fill	VII	K2
1735 nw	6.9.91			15cm	6.5cm	b1616 c1714	posthole	VII	K2
1736 ne	6.9.91	10yr 3/6	50c.50s			fill of 1735	posthole fill	VII	K2
1737 ne	6.9.91			9cm	3cm	b1616 c1714	posthole	VII	K2
1738 ne	6.9.91	10yr 3/6	75st.25c			fill of 1737	posthole fill	VII	K2
1739 ne	6.9.91			10cm	5cm	b1616 c1714	posthole	VII	K2
1740 ne	6.9.91	10yr 3/4	60c.40s			fill of 1739	posthole fill	VII	K2
1741 sw	6.9.91			5cm	3cm	b1616 c1714	posthole	VII	K2
1742 sw	6.9.91	7.5yr 3/2	70c.30s			fill of 1741	posthole fill	VII	K2
1743 sw	6.9.91			7cm	2cm	b1616 c1714	posthole	VII	K2
1744 sw	6.9.91	7.5yr 3/2	70c.30s			fill of 1743	posthole fill	VII	K2
1745 sw	6.9.91			11cm	4cm	b1616 c1714	posthole	VII	K2
1746 sw	6.9.91	5yr 3/4	70c.30s			fill of 1745	posthole fill	VII	K2
1747 sw	6.9.91			9cm	3cm	b1616 c1714	posthole	VII	K2
1748 sw	6.9.91	5yr 3/4	80c.20s			fill of 1747	posthole fill	VII	K2
1749 sw	6.9.91			14cm	6cm	b1616 c1714	posthole	VII	K2
1750 sw	6.9.91	7.5yr 3/2	65c.35s			fill of 1749	posthole fill	VII	K2
1751 sw	6.9.91			17cm	7cm	b1616 c1714	posthole	VII	K2

1752 sw	6.9.91	7.5yr 3/2	75c.25st			fill of 1751	posthole fill	VII	K2
1753 sw	6.9.91			17cm	5cm	b1616 c1714	posthole	VII	K2
1754 sw	6.9.91	7.5yr 3/2	70st/c.30s			fill of 1753	posthole fill	VII	K2
1755 sw	6.9.91			175x65cm	25cm	b1616 c1714	pit	VII	K2
1756 sw	6.9.91	7.5yr 3/2	60c.40s			fill of 1755	pit fill	VII	K2
1757 se	6.9.91			23x14cm	6cm	b1616 c1714	posthole	VII	K2
1758 se	6.9.91	10yr 5/8	50s.50c			fill of 1757	posthole fill	VII	K2
1759 nw	6.9.91			18cm	12cm	b1616 c1714	posthole	VII	K2
1760 nw	6.9.91	7.5yr 3/4	75c.25s			fill of 1759	posthole fill	VII	K2
1761 sw	6.9.91			10cm	5cm	b1616 c1714	posthole	VII	K2
1762 sw	6.9.91	7.5yr 3/2	70c.30s			fill of 1761	posthole fill	VII	K2
1763 nw	6.9.91			23x14cm	9cm	b1616 c1714	posthole	VII	K2
1764 nw	6.9.91	7.5yr 3/2	80c.20s			fill of 1763	posthole fill	VII	K2
1765 nw	6.9.91			12cm	10cm	b1616 c1714	posthole	VII	K2
1766 nw	6.9.91	7.5yr 3/4	70c.30s			fill of 1765	posthole fill	VII	K2
1767 sw	6.9.91			10cm	6cm	b1616 c1714	posthole	VII	K2
1768 sw	6.9.91	7.5yr 3/4	80c.20s			fill of 1767	posthole fill	VII	K2
1769 sw	6.9.91			8cm	4cm	b1616 c1714	posthole	VII	K2
1770 sw	6.9.91	10yr 3/4	70c.30s			fill of 1769	posthole fill	VII	K2
1771 nw	6.9.91			7cm	3cm	b1616 c1714	posthole	VII	K2
1772 nw	6.9.91	10yr 3/4	70c.30s			fill of 1771	posthole fill	VII	K2
1773 se	6.9.91			15x12cm	15.5cm	b1616 c1714	posthole	VII	K2
1774 se	6.9.91	7.5yr 3/4	80c.20s			fill of 1773	posthole fill	VII	K2
1775 nw	6.9.91			11cm	10cm	b1616 c1714	posthole	VII	K2
1776 nw	6.9.91	10yr 3/4	70c.30s			fill of 1775	posthole fill	VII	K2
1777 sw	6.9.91			20cm	13cm	b1616 c1714	posthole	VII	K2
1778 sw	6.9.91	10yr 3/4	70c.30s			fill of 1777	posthole fill	VII	K2
1779 sw	6.9.91			22cm	3cm	b1616 c1714	posthole	VII	K2
1780 sw	6.9.91	2.5yr 3/4	70c.30s			fill of 1779	posthole fill	VII	K2
1781 sw	6.9.91			6cm	3cm	b1616 c1714	posthole	VII	K2
1782 sw	6.9.91	10yr 3/4	70c.30s			fill of 1781	posthole fill	VII	K2
1783 nw	6.9.91			8cm	6.5cm	b1616 c1714	posthole	VII	K2
1784 nw	6.9.91	10yr 3/4	70c.30s			fill of 1783	posthole fill	VII	K2
1785 sw	6.9.91			8cm	15cm	b1616 c1714	posthole	VII	K2
1786 sw	6.9.91	10yr 4/3	70c.30s			fill of 1785	posthole fill	VII	K2
1787 nw	7.9.91			15x14cm	13cm	b1616 c1714	posthole	VII	K2
1788 nw	7.9.91	10yr 3/3	60c.40s			fill of 1787	posthole fill	VII	K2
1789 ne	7.9.91			11cm	8cm	b1616 c1714	posthole	VII	K2
1790 ne	7.9.91	7.5yr 3/4	60c.40s			fill of 1789	posthole fill	VII	K2

1791 nw	7.9.91			16x9cm	4cm	b1616 c1714	posthole	VII	K2
1792 nw	7.9.91	7.5yr 3/2	50c.50s			fill of 1791	posthole fill	VII	K2
1793 nw	7.9.91			12cm	6.5cm	b1616 c1714	posthole	VII	K2
1794 nw	7.9.91	10yr 3/4	60c.40s			fill of 1793	posthole fill	VII	K2
1795 nw	7.9.91			14cm	5cm	b1616 c1714	posthole	VII	K2
1796 nw	7.9.91	10yr 4/4	60c.40s			fill of 1795	posthole fill	VII	K2
1797 nw	7.9.91			10cm	5cm	b1616 c1714	posthole	VII	K2
1798 nw	7.9.91	10yr 4/4	60c.40s			fill of 1797	posthole fill	VII	K2
1799 nw	7.9.91			10cm	10cm	b1616 c1714	posthole	VII	K2
1800 nw	7.9.91	10yr 2/2	60c.40s			fill of 1799	posthole fill	VII	K2
1801 nw	7.9.91			3cm	5cm	b1616 c1714	posthole	VII	K2
1802 nw	7.9.91	10yr 4/4	60c.40s			fill of 1801	posthole fill	VII	K2
1803 nw	7.9.91			11cm	5cm	b1616 c1714	posthole	VII	K2
1804 nw	7.9.91	5yr 3/3	70c.30s			fill of 1803	posthole fill	VII	K2
1805 sw	7.9.91			8cm	2cm	b1616 c1714	posthole	VII	K2
1806 sw	7.9.91	7.5yr 3/4	70c.30s			fill of 1805	posthole fill	VII	K2
1807 ne	7.9.91			7cm	8cm	b1616 c1714	posthole	VII	K2
1808 ne	7.9.91	10yr 4/4	60c.40s			fill of 1807	posthole fill	VII	K2
1809 ne	7.9.91			7cm	7cm	b1616 c1714	posthole	VII	K2
1810 ne	7.9.91	10yr 4/4	50s.50c			fill of 1809	posthole fill	VII	K2
1811 all	9.9.91	7.5yr 3/4	80c.20s			b1714 a1887	old land surf	IV	
1812 ne	9.9.91			20cm	9cm	b1714 c1811	posthole	V	K1
1813 ne	9.9.91	10yr 3/6	60c.40s			fill of 1812	posthole fill	V	K1
1814 ne	9.9.91			13cm	6.5cm	b1714 c1811	posthole	V	K1
1815 ne	9.9.91	10yr 3/4	70c.30s			fill of 1814	posthole fill	V	K1
1816 ne	9.9.91			10cm	7cm	b1714 c1811	posthole	V	K1
1817 ne	9.9.91	10yr 3/4	70c.30s			fill of 1816	posthole fill	V	K1
1818 ne	9.9.91			14cm	12.5cm	b1714 c1811	posthole	V	K1
1819 ne	9.9.91	10yr 3/6	70s.30c			fill of 1818	posthole fill	V	K1
1820 ne	9.9.91			10cm	5cm	b1714 c1811	posthole	V	K1
1821 ne	9.9.91	7.5yr 3/4	50c.50s			fill of 1820	posthole fill	V	K1
1822 ne	9.9.91			10cm	5cm	b1714 c1811	posthole	V	K1
1823 ne	9.9.91	10yr 3/4	70c.30s			fill of 1822	posthole fill	V	K1
1824 ne	9.9.91			9cm	6.5cm	b1714 c1811	posthole	V	K1
1825 ne	9.9.91	10yr 3/4	70c.30s			fill of 1824	posthole fill	V	K1
1826 ne	9.9.91			10cm	7.5cm	b1714 c1811	posthole	V	K1
1827 ne	9.9.91	10yr 4/4	70c.30s			fill of 1826	posthole fill	V	K1
1828 nw	9.9.91			11cm	3cm	b1714 c1811	posthole	V	K1
1829 nw	9.9.91	10yr 4/4	60c.40s			fill of 1828	posthole fill	V	K1

1830 nw	9.9.91			4x8cm	3cm	b1714 c1811	posthole	V	K1
1831 nw	9.9.91	10yr 6/6	100s			fill of 1830	posthole fill	V	K1
1832 nw	9.9.91			7cm	6cm	b1714 c1811	posthole	V	K1
1833 nw	9.9.91	10yr 3/4	60c.40s			fill of 1832	posthole fill	V	K1
1834 nw	9.9.91			55x17cm	8cm	b1714 c1811	slot?	V	K1
1835 nw	9.9.91	10yr 4/4	60c.40s			fill of 1834	slot? fill	V	K1
1836 nw	9.9.91			10cm	6cm	b1714 c1811	posthole	V	K1
1837 nw	9.9.91	10yr 4/4	60c.40s			fill of 1836	posthole fill	V	K1
1838 nw	9.9.91			9cm	3cm	b1714 c1811	posthole	V	K1
1839 nw	9.9.91	10yr 3/6	65c.35s			fill of 1838	posthole fill	V	K1
1840 nw	9.9.91			9cm	8.5cm	b1714 c1811	posthole	V	K1
1841 nw	9.9.91	10yr 3/6	80c.20s			fill of 1840	posthole fill	V	K1
1842 nw	9.9.91			5cm	5.5cm	b1714 c1811	posthole	V	K1
1843 nw	9.9.91	10yr 3/6	70c.30s			fill of 1842	posthole fill	V	K1
1844 nw	9.9.91			11cm	4.5cm	b1714 c1811	posthole	V	K1
1845 nw	9.9.91	5yr 4/4	80c.20s			fill of 1844	posthole fill	V	K1
1846 nw	9.9.91			10cm	6cm	b1714 c1811	posthole	V	K1
1847 nw	9.9.91	10yr 3/6	70c.30s			fill of 1846	posthole fill	V	K1
1848 nw	9.9.91			15cm	8cm	b1714 c1811	posthole	V	K1
1849 nw	9.9.91	10yr 2/2	70c.30s			fill of 1848	posthole fill	V	K1
1850 nw	9.9.91			23cm	6.5cm	b1714 c1811	posthole	V	K1
1851 nw	9.9.91	10yr 3/4	80c.20s			fill of 1850	posthole fill	V	K1
1852 nw	9.9.91			17cm	8cm	b1714 c1811	posthole	V	K1
1853 nw	9.9.91	7.5yr 3/4	70c.30s			fill of 1852	posthole fill	V	K1
1854 se	9.9.91	10yr 4/4	75c.25s			fill of	pit fill		
1855 sw	9.9.91			15cm	10cm	b1714 c1811	posthole	V	K1
1856 sw	9.9.91	7.5yr 3/4	70c.30s			fill of 1855	posthole fill	V	K1
1857 sw	9.9.91			10cm	4cm	b1714 c1811	posthole	V	K1
1858 sw	9.9.91	5yr 3/4	55c.45s			fill of 1857	posthole fill	V	K1
1859 sw	9.9.91			16cm	3cm	b1714 c1811	posthole	V	K1
1860 sw	9.9.91	7.5yr 3/4	60c.40s			fill of 1859	posthole fill	V	K1
1861 ne	9.9.91			16x13cm	8cm	b1714 c1811	posthole	V	K1
1862 ne	9.9.91	10yr 4/4	90s.10s			fill of 1861	posthole fill	V	K1
1863 ne	9.9.91			13cm	6.5cm	b1714 c1811	posthole	V	K1
1864 ne	9.9.91	7.5yr 3/4	50s.50c			fill of 1863	posthole fill	V	K1
1865 nw	9.9.91			12cm	6.5cm	b1714 c1811	posthole	V	K1
1866 nw	9.9.91	7.5yr 3/4	75c.25s			fill of 1865	posthole fill	V	K1
1867 nw	9.9.91			17cm	6.5cm	b1714 c1811	posthole	V	K1
1868 nw	9.9.91	7.5yr 3/2	80c.20s			fill of 1867	posthole fill	V	K1

1869 se	9.9.91			17x11cm	4.5cm	b1714 c1811	posthole	V	K1
1870 se	9.9.91	7.5yr 3/2	70c.30s			fill of 1869	posthole fill	V	K1
1871 ne	9.9.91			15x8cm	4.5cm	b1714 c1811	posthole	V	K1
1872 ne	9.9.91	10yr 4/3	60c.40s			fill of 1871	posthole fill	V	K1
1873 nw	9.9.91			12x7cm	4cm	b1714 c1811	posthole	V	K1
1874 nw	9.9.91	10yr 4/4	80c.20s			fill of 1873	posthole fill	V	K1
1875 nw	10.9.91			30cm	10cm	b1811 c1887	pit?	III	K
1876 nw	10.9.91	2.5yr 4/4	70c.30s			fill of 1875	pit? fill	III	K
1877 nw	10.9.91			18cm	4.5cm	b1811 c1887	posthole?	III	K
1878 nw	10.9.91	7.5yr 4/4	50c.50s			fill of 1877	posthole fill	III	K
1879 nw	10.9.91			20cm	3.5cm	b1811 c1887	posthole?	III	K
1880 nw	10.9.91	7.5yr 2.5/4	70c.30s			fill of 1879	posthole fill	III	K
1881 sw	10.9.91			65x60cm	25cm	b1811 c1887	pit?	III	K
1882 sw	10.9.91	7.5yr 3/2	80c.20s			fill of 1881	pit? fill	III	K
1883 sw	10.9.91			40cm	9cm	b1811 c1887	pit?	III	K
1884 sw	10.9.91	7.5yr 3/4	80c.20s			fill of 1883	pit? fill	III	K
1885 se	10.9.91			45x40cm	36.5cm	b1811 c1887	pit?	III	K
1886 se	10.9.91	7.5yr 3/4	75c.25s			fill of 1885	pit? fill	III	K
1887 all	10.9.91		100g			b1811 a1888	basal gravel	II	
1888 all	10.9.91		100rock			b1888	bedrock	I	

APPENDIX C

RADIOCARBON AGES OF MEASURED SAMPLES FROM ASW2

<u>Phase</u>	<u>Context</u>	<u>Sample reference</u>	<u>Radiocarbon age</u>	<u>Sample material</u>	<u>Archaeological context</u>
G5	340	BM-2781	1950+/-60 BP	Charcoal	Fill of posthole 341
G3	632	Beta-48939	1950+/-60 BP	Charcoal	Foundation construction/levelling
G2	615	Beta-48938	2130+/-60 BP	Charcoal	Bulked sample from levelling/occupation floor
H	735	BM-2878	1960+/-80 BP	Charcoal	Basal fill of oven/furnace 735
H	692	Beta-48937	2250+/-60 BP	Charcoal	Basal fill of oven/furnace 733
H	718	Beta-48936	2280+/-70 BP	Charcoal	Basal fill of oven/furnace 735
H	721	Beta-48935	2230+/-90 BP	Charcoal	Basal fill of oven/furnace 738
I8	728	Beta-48934	2000+/-80 BP	Charcoal	Basal fill of post slot 737
I8	812	Beta-48933	2220+/-80 BP	Charcoal	Basal fill of post slot 811
I7	834	Beta-48932	2160+/-60 BP	Charcoal	Bulked sample from levelling/occupation floor
I5	901	Beta-48931	2320+/-60 BP	Charcoal	Fill of posthole 900
I4	905	Beta-48930	2390+/-60 BP	Charcoal	Carbonised timbers under roof collapse
I4	914	BM-2876	2200+/-45 BP	Charcoal	Carbonised timbers under roof collapse
I3	1097	Beta-48928	2290+/-90 BP	Charcoal	Basal fill of oven/furnace 1096
I2	1112	Beta-48927	2110+/-60 BP	Charcoal	Basal fill of stoke hole 1111
I2	1113	Beta-48926	2150+/-60 BP	Charcoal	Basal fill of oven/furnace 1109
I1	1173	Beta-48925	2150+/-50 BP	Charcoal	Basal fill of oven/furnace 1148
I1	1173	BM-2877	2310+/-70 BP	Charcoal	Basal fill of oven/furnace 1148
J4	1236	Beta-48919	2160+/-60 BP	Charcoal	Basal fill of oven/furnace 1235
J4	1291	Beta-57702	2300+/-90 BP	Charcoal	Basal fill of oven/furnace 1235
J4	1291	Beta-48918	2240+/-80 BP	Charcoal	Basal fill of oven/furnace 1235
J4	1175	Beta-57701	2380+/-70 BP	Charcoal	Bulked sample from levelling/occupation floor
J3	1382	Beta-48923	2140+/-70 BP	Charcoal	Fill of burial? pit 1371
J3	1342	Beta-48924	2320+/-70 BP	Charcoal	Basal fill of oven/furnace 1341
J2	1417	Beta-48922	2230+/-60 BP	Charcoal	Fill of posthole 1416
J1	1496	Beta-48921	2310+/-100 BP	Charcoal	Bulked sample from levelling/occupation floor
K3	1616	Beta-48920	2490+/-60 BP	Charcoal	Bulked sample from levelling/occupation floor
K2	1714	Beta-48917	2360+/-70 BP	Charcoal	Bulked sample from levelling/occupation floor
K1	1811	Beta-48916	2550+/-80 BP	Charcoal	Bulked sample from levelling/occupation floor

CONTENTS

Preface	F.R. Allchin	xi
Acknowledgements		xiii
List of Plates		xv
List of Figures		xxi
List of Maps		xxxii
List of Tables		xxxiii
1 Introduction	Robin Coningham	1
2 Coins	Osmund Bopearachchi	7
2.1 Introduction		7
2.2 The coin catalogue		7
2.2.1 Punch-marked coins		7
2.2.2 Elephant and <i>Swastika</i>		8
2.2.3 Tree and <i>Swastika</i>		8
2.2.4 <i>Nandipada</i> and <i>Swastika</i>		9
2.2.5 Tree and <i>Caitya</i>		10
2.2.6 <i>Caitya</i> and Fish		10
2.2.7 Lakshmi plaques		10
2.2.8 Maneless lion type		12
2.2.9 Late Roman Imperial Third Brass		13
2.2.10 Lakshmi type		13
2.2.11 Pandyan coins		13
2.2.12 British period		14
2.2.13 Unidentified coins		14
2.3 Conclusion		16
3 Metal Objects	Robin Coningham and Paul Harrison	27
3.1 Introduction		27
3.2 Iron objects		28
3.2.1 Arrowheads		28
3.2.2 Chains		28
3.2.3 Saw blades		28
3.2.4 Axes and adzes		29
3.2.5 Spearheads		29
3.2.6 Knife blades		29
3.2.7 Wire		30
3.2.8 Cleaver blades		30
3.2.9 Needle		30
3.2.10 Pins or styli		30
3.2.11 Bracelets		30
3.2.12 Tweezers		31
3.2.13 Collars		31
3.2.14 Pipe		32
3.2.15 Staple		32
3.2.16 Bars		32
3.2.17 Sheet fittings		36
3.2.18 Tapering nails		37
3.2.19 T-shaped nails		38
3.2.20 Large-headed nails		38
3.2.21 L-shaped nails		39
3.2.22 Mushroom-headed nails		39
3.2.23 Nailshafts and bars		39
3.2.24 Other objects		43

3.2.25 Unidentifiable fragments	44
3.3 Copper-alloy objects	46
3.3.1 Bells	46
3.3.2 Kohl sticks	47
3.3.3 Stamp seal	47
3.3.4 Rings	47
3.3.5 Vessels	48
3.3.6 Petal decoration	48
3.3.7 Mirror	48
3.3.8 Stupa umbrella	48
3.3.9 Nails	48
3.3.10 Pin, or possibly stylus	48
3.3.11 Wire pieces	49
3.3.12 Sheet fittings	49
3.3.13 Bars	50
3.3.14 Unidentified objects	51
3.3.15 Unidentified fragments	51
3.4 Gold objects	54
3.5 Lead objects	54
3.5.1 Rolled strips	54
3.5.2 Disc	54
3.5.3 Sheets	54
3.6 Discussion and conclusion	55
4 Metal-working Residues	Gerry McDonnell, Adam Russell and Robin Coningham
4.1 Introduction	77
4.2 Ferrous diagnostic slags and residues	78
4.3 Non-diagnostic slags and residues	83
4.4 Non-ferrous diagnostic residues	83
4.5 Crucible fragments	84
4.6 Moulds	84
4.7 Conclusion	85
5 Glazed Ceramics	Philip Seely, Sheila Canby and Robin Coningham
5.1 Introduction	91
5.2 West Asian ceramics	91
5.2.1 Lustre ware	91
5.2.2 'Imitation' lustre ware	93
5.2.3 White tin-glazed ware	94
5.2.4 Lead-glazed wares	98
5.2.5 The 'Sasanian-Islamic' wares	99
5.2.6 Undiagnostic	107
5.2.7 Buff ware	107
5.3 East Asian ceramics	111
5.3.1 Changsha painted stoneware	111
5.3.2 Xing and Ding white wares	112
5.3.3 Yue green ware	112
5.3.4 Coarse grey stoneware	113
5.4 European ceramics	113
5.5 Locally manufactured glazed ceramic tiles	113
5.6 Dating the glazed ceramics	114
5.7 Conclusion	116
6 Unglazed Ceramics	Robin Coningham, Louise Ford, Steven Cheshire and Ruth Young
6.1 Introduction	127
6.2 Fine wares	127
6.2.1 Grey ware	127
6.2.2 Rouletted ware (Arikamedu Type 1)	128
6.2.3 Arikamedu Type 10	133
6.2.4 Arikamedu Type 18	159
	163

	6.2.5 Northern Black Polished ware	165
	6.2.6 Unslipped and/or pale body coloured	165
	6.2.7 Additional fine wares	166
	6.2.8 Fine black-slipped ware	167
	6.2.9 Red Polished ware	168
	6.2.10 Omphalos ware	172
	6.2.11 White-slipped ware with red paint	172
	6.2.12 Brown ware	173
	6.3 Coarse wares	175
	6.3.1 Introduction	175
	6.3.2 The forms	176
	6.4 Ceramic and clay objects	274
	6.5 Conclusion	277
7	Glass Objects	Robin Coningham
	7.1 Introduction	333
	7.2 Vessels	333
	7.2.1 Rims	335
	7.2.2 Bases	336
	7.2.3 Necks	337
	7.2.4 Decorated body sherds	337
	7.2.5 Undiagnostic body sherds	337
	7.3 Other objects	347
	7.3.1 Hair curls	348
	7.3.2 Ear reel	348
	7.3.3 Kohl stick	348
	7.3.4 Rings	348
	7.3.5 Bangles	349
	7.3.6 Unidentified objects	352
	7.4 Glass beads	353
	7.5 Unformed and ingot glass	353
	7.6 Conclusion	356
8	Stone Objects	Robin Coningham, Daniella Burroni, Randolph Donahue and Louise Ford
	8.1 Introduction	377
	8.2 Lapis lazuli	377
	8.3 Greenstone	378
	8.4 Chert, carnelian, agate, chalcedony, jasper and sard	379
	8.4.1 Chert	380
	8.4.2 Carnelian	380
	8.4.3 Agate	385
	8.4.4 Chalcedony	386
	8.4.5 Jasper	386
	8.4.6 Sard	386
	8.5 Garnet	387
	8.6 Amethyst	390
	8.7 Amazonite	394
	8.8 Quartz	394
	8.8.1 Clear quartz	394
	8.8.2 Smoky quartz	403
	8.9 Crystalline limestone	407
	8.10 Soapstone	408
	8.11 Coral	408
	8.12 Quartzite	408
	8.13 Mica	410
	8.13.1 Muscovite	410
	8.13.2 Biotite	412
	8.14 Crystalline quartz bead production at Anuradhapura Salgaha Watta	412
	8.15 Conclusion	413
9	Inscriptions and Graffiti	F.R. Allchin
	9.1 Introduction	431

9.2	Inscriptions		431
9.2.1	General features and scripts encountered		431
9.2.2	Nature and scope of inscriptions		432
9.2.3	Stratigraphic evidence for the inscriptions		432
9.2.4	The development of the script		433
9.2.5	Evidence for the use of writing		435
9.2.6	The language of the Anuradhapura inscriptions		435
9.2.7	Catalogues 1–4		435
9.3	Graffiti and symbols		442
9.3.1	Preliminary remarks		442
9.3.2	Stratigraphic occurrence of graffiti		443
9.3.3	Typology, significance and interpretation		443
9.3.4	Stylistic tendencies		446
9.3.5	Comparative evidence from other sites		446
9.3.6	Catalogues 5 and 6		448
9.4	Discussion and conclusion		453
9.4.1	The inscriptions		453
9.4.2	The graffiti		455
9.4.3	Inscriptions and graffiti: cultural complexity and interaction		455
10	Faunal Remains	Ruth Young, Robin Coningham, Kalum Nalinda, Jude Perera and Hafeez Khan	501
10.1	Introduction		501
10.2	Major species		502
10.2.1	<i>Axis axis ceylonesis</i> (Ceylon spotted deer)		502
10.2.2	<i>Bos indicus</i> or <i>Bos taurus</i> (cattle)		524
10.2.3	<i>Sus scrofa cristatus</i> (Indian wild pig)		541
10.2.4	<i>Parreysia corrugata</i> (freshwater corrugated clam)		550
10.3	Minor species		556
10.3.1	Mammals		556
10.3.2	Birds		572
10.3.3	Reptiles		574
10.3.4	Fish		581
10.3.5	Shells		583
10.4	Conclusions		587
11	Human Remains	Chris Knusel, Robin Coningham and Seema Mann	619
11.1	Introduction		619
11.2	The human remains		619
11.3	Pit 1371		621
11.4	Ancient and modern patterns of disposal of the dead		621
11.5	Comparative sites		622
11.5.1	Human remains		622
11.5.2	Pit 1371		623
11.6	Conclusion		623
12	Botanical Remains	Ruth Young and Robin Coningham	629
12.1	Introduction		629
12.2	Areas of special interest		629
12.3	Archaeobotanical remains		630
12.3.1	Plant-impressed fired bricks and tiles		630
12.3.2	Wood charcoal		633
12.3.3	Wood and wood pseudomorphs		635
12.3.4	Wood pseudomorphs related to iron objects		636
12.3.5	Fibre material		636
12.3.6	Flotation samples		637
12.3.7	Charred rice		638
12.4	Comparable sites and material		638
12.5	Ethnographic studies		639
12.6	Absence of charred edible plant remains		640
12.7	Conclusion		640

Contents

13	Conclusion: The Nature of the Early Historic City	Robin Coningham	647
	References		653
	Appendix A: Glass Bead Catalogue		661
	Index		689

PREFACE

F.R. Allchin

The site of Anuradhapura is important, from two principal points of view. In the first place it has played a significant role in the history and cultural traditions of Sri Lanka as a whole. This was made possible from early times by its geographical position in the central dry zone of the island, favoured by a moderate climate with good potential for agriculture and adequate water supplies from tank irrigation. These conditions provided the longstanding basis for the city's political stability and importance throughout Early Historic times. Secondly, Anuradhapura has a more immediate, specific importance from an archaeological point of view on account of the extent, depth and richness of the occupation deposits. This has been demonstrated by the research done there by archaeologists during the last century. Particular mention may be made of the excavations at Anuradhapura carried out by P.E.P. Deraniyagala and, more recently, by his son, Dr S.U. Deraniyagala. This work has opened the way to achieving a better understanding of Early Historic Sri Lanka than was hitherto possible and provided an excellent basis for further investigation. Indeed, it is upon this basis that the investigations described here have been undertaken and have carried forward the study of this remarkable site, leading to a more detailed and comprehensive understanding of its long history and development. The investigations described here had the advantage of a number of modern techniques, including geophysical methods of surface survey, three-dimensional recording of levels and finds in excavation, and ample radiocarbon measurements. On account of the depth and continuity of the dated cultural sequence described in the two volumes that make up the report, each of which deals with specific aspects of the

excavation as a whole, it is possible to relate Anuradhapura to a wider archaeological context. Volume I, *The Site*, provides the archaeological framework and is firmly based on the carefully recorded cultural sequence, the longest and most fully recorded so far available in Sri Lanka, and indeed in the entire southern half of the Indian subcontinent. Furthermore, this sequence is dated throughout by a large number of radiocarbon measurements. The present, second volume, *The Artefacts*, describes the artefacts and other finds and relates them to the dated sequence of archaeologically identified layers, thus clothing the dated structural framework with cultural material. This means that reasonably precise comparisons can now be made with dated sequences elsewhere in adjoining regions, and in the world at large. Another important discovery was that of a small number of short inscriptions on pottery and other objects in Brahmi script. These too are now datable by radiocarbon measurements and are the oldest dated inscriptions so far recorded in the southern peninsula, with the earliest occurring in the late fifth century BC at trench ASW2 but even earlier ones (c. sixth century BC) at Deraniyagala's trenches AMP88 and ASW88 (Deraniyagala 1992: 739). Furthermore, the record provided by the Anuradhapura sequence makes it possible to look outward at its historic links and their implications. For example, it is now possible to study the city of Anuradhapura's cultural and trading links with other parts of the ancient world. In sum, the excavations at Anuradhapura provide a wonderful database of evidence relating to the Iron Age and Early Historic periods of South Asia and from it we can study the stages of the emergence of a city and its subsequent growth.

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LIST OF PLATES

Colour Plate 1.1

xxxv

- a) Lustre ware base and rim (special finds 109 [left] and 1552 [right])
- b) Lustre ware rim (sf 1566)
- c) 'Imitation' lustre ware (sf 746)
- d) White tin glaze sherd (sf 176) and white tin glaze sherd with cobalt splash (sf 1323)
- e) Lead glazed rim (sf 343)
- f) 'Sasanian-Islamic' or Blue-glazed ware sherds (sfs 995 [left] and 6620 [right])
- g) Early example of Blue-glazed ware sherd (sf 7191)
- h) Buff ware sherd with bitumen coating (sf 8670)
- i) Changsha painted stoneware (sfs 2139 [left] and 1315 [right])
- j) North Chinese porcelain Xing ware (sfs 2272 [left] and 1325 [right])

Colour Plate 1.2

xxxvi

- a) Yue green stoneware (sfs 346 [left] and 1885 [right])
- b) Coarse grey stoneware (sf 182)
- c) Grey ware rim (sf 15630)
- d) Grey ware body sherds with paddle impression (sfs 2667 [left] and 2249 [right])
- e) Rouletted ('baby' variant) ware rims (sfs 15394 [bottom] and 10172 [top])
- f) Arikamedu Type 10 rim (sf 6710)
- g) Arikamedu Type 18 rim and body sherd (sfs 7082 [left] and 8141 [right])
- h) Northern Black Polished ware rim (sf 16539)
- i) Red Polished ware spout (sf 1833)
- j) Omphalos ware foot and base sherds (sfs 2909 [left] and 6997 [right])

Colour Plate 1.3

xxxvii

- a) Omphalos ware base (sf 6599)
- b) Omphalos ware base (sf 6599)
- c) Omphalos ware foot and base (sf 10006)
- d) Omphalos ware foot and base – note rouletted decoration on exterior body (sf 10006)
- e) White-slipped ware with red paint rims (sfs 234 [top left], 979 [bottom left], 978 [top right] and 86 [bottom right])
- f) Brown ware body sherds (sf 30041)
- g) Eastern Mediterranean glass vessel sherds (sfs 1097 [top], 5306 [left] and 6716 [right])
- h) Glass ingot (sf 2825)
- i) Inlaid glass bangles (sfs 616 [left] and 1602 [right])
- j) Assorted coloured glass beads

Colour Plate 1.4

xxxviii

- a) Lapis lazuli lugged angular bead (sf 6689)
- b) Greenstone conch-shaped bead (sf 2947)
- c) Carnelian intaglio or ring blank (sf 5822)
- d) Garnet debitage (sf 5199)
- e) Amethyst lugged sphere bead (sf 15679)
- f) Clear quartz pendant (sf 6682)
- g) Sherd inscribed with early Brahmi (sf 17332)
- h) Clay sealing with text (sf 10249)
- i) Ivory mirror stand (sf 10196)
- j) Ivory vessel lid (sf 6370)

Plate 2.1 Coins

24

- Punch-marked coin (sf 417)
- Punch-marked coin (sf 15802)
- Punch-marked coin (sf 2803)
- Elephant and Swastika coin (sf 15990)
- Elephant and Swastika coin (sf 10205)
- Tree and Swastika coin (sf 2846)

Tree and *Swastika* coin (sf 6877)
 Tree and *Swastika* coin (sf 6768)
 Tree and *Swastika* coin (sf 2542)
 Tree and *Swastika* coin (sf 7163)

Plate 2.2 Coins

25

Nandipada and *Swastika* coin (sf 6171)
Nandipada and *Swastika* coin (sf 15864)
 Tree and *Caitya* coin (sf 6629)
Caitya and Fish coin (sf 6943)
 Lakshmi plaque (sf 6186)
 Lakshmi plaque (sf 6063)
 Lakshmi plaque (sf 7033)
 Lakshmi plaque (sf 6658)
 Maneless lion coin (sf 2327)
 Maneless lion coin (sf 394)

Plate 2.3 Coins

26

Maneless lion coin (sf 2918)
 Maneless lion coin (sf 6123)
 Maneless lion coin (sf 5146)
 Late Roman Imperial Third Brass (sf 221)
 Late Roman Imperial Third Brass (sf 5144)
 Late Roman Imperial Third Brass (sf 713)
 Lakshmi-type coin (sf 6373)
 Pandyan coin (sf 2553)
 Pandyan coin (sf 242)
 George VI coin (sf 6)

Plate 3.1 Metal objects

66

Iron arrowhead (sf 10679)
 Iron axehead (sf 5373)

Plate 3.2 Metal objects

67

Iron cleaver blade (sf 6670)
 Iron collar and bar (sf 10120)

Plate 3.3 Metal objects

68

Copper-alloy bells (sfs 1475 [left] and 1757 [right])
 Copper-alloy kohl sticks (sfs 6347 [bottom], 6178 [middle] and 2891 [top])

Plate 3.4 Metal objects

69

Copper-alloy stamp seal (sf 676)
 Copper-alloy petal decoration (sf 10108)

Plate 3.5 Metal objects

70

Copper-alloy mirror fragment (sf 15086)
 Copper-alloy rings (sfs 2873 [left] and 2850 [right])

Plate 3.6 Metal objects

71

Copper-alloy stupa umbrella or handle (sf 10137)
 Copper-alloy decorated strip (sf 2840)

Plate 4.1 Metal-working objects

90

Limestone goldsmith's mould (sf 6963)
 Limestone goldsmith's mould (sf 6963)

Plate 6.1 Fine ware sherds

293

Rouletted ware body sherd with rouletting (sf 6868)
 Arikamedu Type 10 rim with stamp (sf 6520)

Plate 6.2 Fine ware sherds	294
Arikamedu Type 10 rim (sf 7051)	
Arikamedu Type 10 rim (sf 15514)	
Plate 6.3 Fine ware sherds	295
Arikamedu Type 10 rim (sf 10014)	
Fine black-slipped ware base (sf 6994)	
Plate 6.4 Clay objects	296
Clay ear reel (sf 1786)	
Hexagonal clay bead (sf 6674)	
Plate 6.5 Clay objects	297
Coarse ware rim with appliqué <i>trisula</i> (sf 248)	
Clay tile (sf 16575)	
Plate 7.1 Glass objects	371
Glass ingot (sf 2825)	
Glass ingot (sf 2825)	
Plate 7.2 Glass objects	372
Glass hair curl (sf 633)	
Spiral glass bangle (sf 5265)	
Plate 8.1 Stone objects	420
Greenstone conch-shaped bead (sf 2947)	
Greenstone conch-shaped bead (sf 2947)	
Plate 8.2 Stone objects	421
Greenstone pendant (sf 199)	
Carnelian bead blank (sf 1050)	
Plate 8.3 Stone objects	422
Carnelian jewellery insert with humped bull (sf 261)	
Carnelian shaped bead blank (sf 2871)	
Plate 8.4 Stone objects	423
Carnelian button bead (sf 6650)	
Clear quartz intaglio or ring blank (sf 792)	
Plate 8.5 Stone objects	424
Clear quartz ring blank (sf 2149)	
Clear quartz oval bead partially drilled (sf 1565)	
Plate 8.6 Stone objects	425
Clear quartz stupa (sf 1609)	
Quartz crystal (sf 10523)	
Plate 8.7 Stone objects	426
Clear quartz shaped blank or ring core (sf 5284)	
Clear quartz shaped blank or ring core (sf 5284)	
Plate 9.1 Inscriptions and graffiti	481
Inscription on pot sherd (sf 16472)	
Inscription on pot sherd (sf 16454)	
Plate 9.2 Inscriptions and graffiti	482
Inscription on pot sherd (sf 16195)	
Inscription on pot sherd (sf 16742)	

Plate 9.3 Inscriptions and graffiti	483
Inscription on pot sherd (sf 16595)	
Inscription on pot sherd (sf 16313)	
Plate 9.4 Inscriptions and graffiti	484
Inscription on pot sherd (sf 16194)	
Inscription on pot sherd (sf 10517)	
Plate 9.5 Inscriptions and graffiti	485
Inscription on pot sherd (sf 17025)	
Inscription on pot sherd (sf 17024)	
Plate 9.6 Inscriptions and graffiti	486
Inscription on pot sherd (sf 17040)	
Inscription on pot sherd (sf 17138)	
Plate 9.7 Inscriptions and graffiti	487
Inscription on pot sherd (sf 17330)	
Inscription on pot sherd (sf 17332)	
Plate 9.8 Inscriptions and graffiti	488
Inscription on pot sherd (sf 17308)	
Inscription on pot sherd (sf 17420)	
Plate 9.9 Inscriptions and graffiti	489
Inscription on pot sherd (sf 17425)	
Inscription on pot sherd (sf 25133)	
Plate 9.10 Inscriptions and graffiti	490
Single <i>aksara</i> on pot sherd (sf 16396)	
Single <i>aksara</i> on pot sherd (sf 16520)	
Plate 9.11 Inscriptions and graffiti	491
Other letter-like graffiti on pot sherd (sf 16364)	
Other letter-like graffiti on pot sherd (sf 16168)	
Plate 9.12 Inscriptions and graffiti	492
Goldsmith's mould with inscription (sf 166)	
Goldsmith's mould with inscription (sf 166)	
Plate 9.13 Inscriptions and graffiti	493
Clay sealing with text (sf 10249)	
Clay sealing with text (sf 10249)	
Plate 9.14 Inscriptions and graffiti	494
Principal variant of Dominant sign on pot sherd (sf 16346)	
Variant of Dominant sign on pot sherd (sf 16427)	
Plate 9.15 Inscriptions and graffiti	495
<i>Svastika</i> sign on pot sherd (sf 10476)	
Snake sign on pot sherd (sf 16156)	
Plate 9.16 Inscriptions and graffiti	496
Bow and arrow sign on pot sherd (sf 16144)	
Balance or human form sign on pot sherd (sf 16443)	
Plate 9.17 Inscriptions and graffiti	497
<i>Yantra</i> sign on pot sherd (sf 16456)	
House sign on pot sherd (sf 17531)	

Plate 9.18 Inscriptions and graffiti Square form sign on pot sherd (sf 10413) Monumental form on pot sherd (sf 2155)	498
Plate 9.19 Inscriptions and graffiti Monumental form on pot sherd (sf 17141) Single-masted ship sign on pot sherd (sf 10548)	499
Plate 9.20 Inscriptions and graffiti Clay sealing (sf 342) Clay sealing (sf 342)	500
Plate 10.1 Ivory and bone objects Ivory mirror stand (sf 10196) Ivory mirror stand (sf 10196)	601
Plate 10.2 Ivory and bone objects Ivory draftsman, counter or stopper (sf 6619) Ivory draftsman, counter or stopper (sf 6619)	602
Plate 10.3 Ivory and bone objects Ivory handle or terminal (sf 16406) Ivory bangle (sf 1569)	603
Plate 10.4 Ivory and bone objects Ivory plaque (sf 6810) Bone plaque (sf 6988)	604
Plate 10.5 Ivory and bone objects Bone plaque (sf 6981) Bone plaque (sf 6372)	605
Plate 10.6 Ivory and bone objects Ivory vessel lid (sf 6370) Ivory vessel lid (sf 6370)	606
Plate 10.7 Ivory and bone objects Ivory vessel base (sf 6970) Ivory vessel base (sf 6970)	607
Plate 10.8 Ivory and bone objects Ivory vessel lid (sf 8025) Ivory vessel lid (sf 8025)	608
Plate 10.9 Ivory and bone objects Carved ivory disc (sf 15686) Ivory styli (sf 15026)	609
Plate 10.10 Ivory and bone objects Bone arrowhead (sf 15687) Bone arrowhead (sf 16589)	610

LIST OF FIGURES

Unless otherwise noted, objects were drawn by Paula Coningham, Antonia Douthwaite and Jon Sygrave and prepared by Steven Cheshire.

Front cover

Inscribed ship with mast, sail and two rudders on grey ware bowl (sf 10548)
(see Fig. 6.1 for full profile)

Figure 3.1 Metal objects

72

Iron arrowhead (sf 15969)
Iron arrowhead (sf 17405)
Iron arrowhead (sf 10679)
Iron chain (sf 17185)
Iron saw blade (sf 15063)
Iron saw blade (sf 8259)
Iron axe (sf 5373)
Iron axe (sf 15862)

Figure 3.2 Metal objects

73

Iron spearhead (sf 10086)
Iron cleaver blade (sf 6670)
Iron one-eyed needle (sf 6882)
Iron bracelet (sf 7136)
Iron collar (sf 6690)
Iron collar (sf 7170)
Iron staple (sf 2225)

Figure 3.3 Metal objects

74

Iron pipe (sf 6904)
Iron T-shaped nail (sf 6559)
Unidentified iron object (sf 15055)
Iron clench plate (sf 15875)
Iron hinge (sf 15995)

Figure 3.4 Metal objects

75

Copper-alloy bell (sf 1757)
Copper-alloy bell (sf 6290)
Copper-alloy bell (sf 1475)
Copper-alloy bell (sf 6804)
Copper-alloy kohl stick (sf 6347)
Copper-alloy kohl stick (sf 6178)
Copper-alloy stamp seal (sf 676)
Copper-alloy ring (sf 5938)
Copper-alloy ring (sf 2850)
Copper-alloy ring (sf 2873)
Copper-alloy vessel (sf 16159)

Figure 3.5 Metal objects

76

Copper-alloy petal decoration (sf 10108)
Copper-alloy mirror (sf 15086)
Copper-alloy stupa umbrella (sf 10137)
Copper-alloy round-headed nail (sf 10498)
Copper-alloy handle (sf 389)
Rolled lead strip (sf 6908)
Lead disc (sf 15047)

Figure 5.1 Glazed ceramics	125
White, tin-glazed ware base (sf 345)	
Lustre ware base (sf 109)	
White, tin-glazed ware rim (sf 761)	
White, tin-glazed ware rim (sf 1344)	
White, tin-glazed ware rim (sf 1336)	
Lustre ware rim (sf 1552)	
Lead-glazed ware base (sf 1138)	
Lustre ware rim (sf 760)	
White, tin-glazed ware base (sf 752)	
Figure 5.2 Glazed ceramics	126
Bitumen-coated buff earthenware rim (sf 30113)	
Bitumen-coated buff earthenware base (sf 2627)	
Xing ware rim (sf 2244)	
Yue greenware rim (sf 75)	
Coarse grey stoneware base (sf 1744)	
Coarse grey stoneware rim (sf 182)	
Figure 6.1 Unglazed fine ware ceramics	298
Grey ware bowl with inscribed ship (sf 10548)	
Grey ware rim (sf 40002)	
Grey ware rim (sf 40004)	
Grey ware rim (sf 40001)	
Figure 6.2 Unglazed fine ware ceramics	299
'Baby' rouletted ware rim (sf 2735)	
'Baby' rouletted ware rim (sf 6817)	
Plain round-edged rouletted ware rim (sf 5609)	
Plain round-edged rouletted ware rim (sf 5225)	
Plain round-edged rouletted ware rim (sf 5624)	
Undercut rouletted ware rim (sf 2399)	
Beaked rouletted ware rim (sf 2324)	
Figure 6.3 Unglazed fine ware ceramics	300
Beaked rouletted ware rim (sf 6437)	
Beaked rouletted ware rim (sf 6533)	
Beaked rouletted ware rim (sf 6639)	
Rouletted ware rim with external grooving (sf 6442)	
Rouletted ware rim with external and internal grooving (sf 7023)	
Rouletted ware rim with external grooving (sf 7024)	
Rouletted ware base (sf 6534)	
Figure 6.4 Unglazed fine ware ceramics (drawn by Steven Cheshire)	301
Arikamedu Type 10 rim with stamp (sf 5140)	
Arikamedu Type 10 rim with stamp (sfs 6710 + 6520)	
Arikamedu Type 10 rim with stamp (sf 5324)	
Arikamedu Type 10 rim with stamp (sf 6859)	
Figure 6.5 Unglazed fine ware ceramics (drawn by Steven Cheshire)	302
Arikamedu Type 10 rim with stamp (sf 7051)	
Arikamedu Type 10 rim with stamp (sf 10014)	
Arikamedu Type 10 rim with stamp (sf 40100)	
Arikamedu Type 10 rim without stamp (sf 15204)	
Figure 6.6 Unglazed fine ware ceramics (drawn by Steven Cheshire)	303
Arikamedu Type 10 rim without stamp (sf 6582)	
Arikamedu Type 10 rim without stamp (sf 15926)	
Arikamedu Type 10 rim without stamp (sf 6573)	
Arikamedu Type 10 rim without stamp (sf 15885)	
Arikamedu Type 10 rim without stamp (sf 6764)	

Figure 6.7 Unglazed fine ware ceramics (drawn by Steven Cheshire)	304
Arikamedu Type 10 rim without stamp (sf 8186)	
Arikamedu Type 10 base (sf 7116)	
Arikamedu Type 10 base (sf 7040)	
Arikamedu Type 10 base (sf 6007)	
Figure 6.8 Unglazed fine ware ceramics	305
Arikamedu Type 18 rim (sf 5223)	
Arikamedu Type 18 rim (sf 5224)	
Arikamedu Type 18 rim (sf 6816)	
Arikamedu Type 18 rim (sf 6834)	
Arikamedu Type 18 rim (sf 7114)	
Figure 6.9 Unglazed fine ware ceramics	306
Fine ware rim (sf 1512)	
Fine ware rim (sf 5138)	
Fine ware base (sf 16028)	
Fine black-slipped rim (sf 7003)	
Fine black-slipped rim (sf 7000)	
Fine black-slipped rim (sf 8087)	
Fine black-slipped base (sf 6994)	
Fine black-slipped base (sf 15398)	
Figure 6.10 Unglazed fine ware ceramics	307
Omphalos ware (sf 2909)	
Omphalos ware (sf 6997)	
Omphalos ware (sfs 6599 + 6624)	
Omphalos ware (sf 7139)	
Omphalos ware (sf 10006)	
Figure 6.11 Unglazed fine ware ceramics	308
White-slipped ware with red paint rim (sf 86)	
White-slipped ware with red paint rim (sf 234)	
White-slipped ware with red paint rim (sf 979)	
White-slipped ware with red paint rim (sf 978)	
Figure 6.12	
Form 1: Shallow bowl or <i>nambiliya</i>	309
1/A/A/1	
1/B/A/1	
1/B/A/2	
1/C/A/1	
1/D/A/1	
1/E/A/1	
1/E/A/2	
1/E/A/3	
1/F/A/2	
1/F/A/3	
1/G/A/1	
Figure 6.13	310
Form 2: Bowl or <i>atili</i>	
2/A/A/1	
2/A/B/1	
2/B/A/1	
2/B/A/2	
2/D/A/1	
2/D/B/1	
2/D/C/1	
2/D/C/2	

2/E/A/1
2/F/A/1
2/F/B/1
2/F/C/1
2/F/C/2
2/G/A/1
2/H/A/1
2/H/A/2
2/I/A/1
2/I/A/2
2/I/A/3

Figure 6.14 311

Form 3: Small bowl or *atili*

3/A/A/1
3/B/A/1

Form 4: Bowl or *atili*

4/A/A/1
4/A/A/2
4/A/A/3
4/B/A/1
4/B/A/2
4/B/A/3
4/C/A/1
4/D/A/1
4/D/B/1
4/E/A/1
4/F/A/1
4/G/A/1
4/I/A/1
4/I/A/2
4/J/A/1

Figure 6.15 312

Form 6: Pot or *hali*

6/B/A/1
6/B/A/2
6/C/A/1
6/C/A/2
6/C/A/3
6/C/A/4
6/D/A/1
6/D/A/2
6/E/A/1
6/F/A/1
6/G/A/1
6/H/A/1
6/I/A/1
6/K/A/1
6/M/A/1
6/N/A/1
6/N/A/2
6/O/A/1
6/O/A/2

Figure 6.16 313

Form 7: Pot or *hali*

7/A/A/1
7/B/A/1
7/B/A/2

Figure 6.17 Form 8: Pot or <i>hali</i> 8/A/A/1 8/A/A/2 8/A/B/1 8/B/A/1 8/C/A/1 8/D/A/1 8/D/A/2 8/E/A/1 8/E/A/2 8/F/A/1 8/F/A/2 8/G/A/1 8/H/A/1 8/J/A/1 8/K/A/1 8/M/A/1 8/N/A/1 8/O/A/1 8/O/A/2	314
Figure 6.18 Form 10: Jar or <i>mutti</i> 10/A/A/1 10/B/A/1 10/C/A/1 10/C/A/2 10/C/A/3 10/D/A/1 10/D/A/2 10/E/A/1	315
Figure 6.19 Form 11: Jar or <i>mutti</i> 11/A/A/1 11/B/A/1 11/C/A/2 Form 12: Jar or <i>mutti</i> 12/A/A/1 12/B/A/1 12/C/A/1	316
Figure 6.20 Form 13: Jar or <i>kale</i> 13/B/A/1 13/B/A/2 13/B/A/3 13/B/A/4	317
Figure 6.21 Form 14: Jar or <i>mutti</i> 14/A/A/1 14/A/B/1 14/A/B/2 14/B/A/1 14/C/A/1 14/C/B/1 14/D/A/1 14/D/A/2 14/E/A/1 14/E/A/2	318

14/E/B/1
14/F/A/1
14/I/A/1
14/J/A/1
14/M/A/1
14/O/A/1

319

Figure 6.22

Form 15: Jar or *mutti*

15/A/A/1
15/B/A/1
15/B/A/2
15/D/A/1
15/D/B/1
15/E/A/1
15/F/A/1

320

Figure 6.23

Form 18: Long-necked jar or *mutti/kale*

18/A/A/1
18/B/A/1
18/C/A/1
18/D/A/1

Form 20: Jar or *kotale*

20/A/A/1
20/A/A/2
20/A/B/1
20/F/A/1

Form 22: Jar or *kotale*

22/A/A/2

321

Figure 6.24

Form 23: Jar or *mutti*

23/A/A/1
23/A/B/1
23/B/A/1
23/C/A/1

Form 24: Jar with spout or *kemi*

24/A/A/1
24/B/A/1
24/B/A/2
24/B/B/1

322

Figure 6.25

Form 26: Jar with spout/sprinkler or *kemi*

26/A/A/1

Form 28: Deep dish or *tali*

28/B/A/1
28/C/A/1

Form 29: Deep dish or *tali*

29/A/A/1
29/A/A/2
29/A/B/1

323

Figure 6.26

Form 30: Dish or *tali*

30/A/A/1
30/A/A/2
30/A/A/3
30/A/A/5
30/A/B/1
30/A/B/2

Figure 6.27	324
Form 31: Dish or <i>tali</i>	
31/A/A/1	
31/A/A/2	
31/A/A/4	
31/A/B/1	
31/A/D/1	
31/A/E/1	
Figure 6.28	325
Form 36: Shallow bowl	
36/A/A/1	
36/A/A/4	
36/A/B/1	
Form 37: Medium-shallow bowl	
37/A/A/1	
Form 38: Deep bowl	
38/A/A/1	
38/A/A/2	
38/A/A/3	
38/A/B/1	
38/A/C/1	
Figure 6.29	326
Form 40: Deep bowl	
40/A/A/1	
Form 44: Flat bowl or <i>tali</i>	
44/C/A/1	
44/E/A/1	
44/F/A/1	
44/G/A/1	
Form 47: Shallow bowl form	
47/C/A/1	
Form 48: Wide bowl or <i>mati-koppe</i>	
48/A/A/1	
48/C/A/1	
Figure 6.30	327
Form 51: Lamp or <i>pahan</i>	
51/A/A/1	
Form 53: Rimmed bowl or <i>mati-koppe</i>	
53/A/A/2	
Form 54: Cup	
54/A/A/1	
54/B/A/1	
54/C/A/1	
Form 56: Enclosed bowl or <i>patraya</i>	
56/A/A/1	
56/A/A/2	
56/B/A/1	
56/B/B/1	
56/C/A/1	
56/E/A/1	
Figure 6.31	328
Form 59: Rimmed bowl or <i>mati-koppe/atili</i>	
59/A/A/1	
Form 60: Rimmed bowl or <i>mati-koppe/hali</i>	
60/B/A/1	
60/B/B/2	
Form 61: Rimmed bowl or <i>mati-koppe/mutti</i>	

61/E/A/2

Form 62/B/A/1: Base of dish or *tali*

Form 62/B/B/1: Base of bowl or *koppe/mutti*

Form 62/B/C/1: Base of bowl or *koppe/mutti*

Form 62/C/A/1: Base of bowl or *koppe/mutti*

Form 62/D/A/1: Base of unidentified vessel

Form 62/D/A/2: Base of unidentified vessel

Figure 6.32

329

Form 65: Long-footed lid with low dome or *mudiya*

65/A/A/1

65/B/A/1

65/B/B/1

Form 66: Short-footed lid with low dome or *mudiya*

66/A/A/1

66/B/A/1

66/C/A/2

66/D/A/1

Form 67: Footless lid with basal rim folded inwards or *mudiya*

67/A/A/3

67/A/A/1

Figure 6.33

330

Form 72: Portable stoves or *lipa*

72/A/A/2

72/A/A/3

Forms 73 & 74: Architectural pinnacles

74/C/A/1

73/B/A/1

74/A/B/1

Figure 6.34 Clay objects

331

Clay sphere bead (sf 10229)

Hexagonal clay bead (sf 6674)

Circular clay disc with decoration (sf 1786)

Round-edged roof tile (sf 16575)

Figure 7.1 Glass objects

373

Egyptian glass vessel rim (sf 256)

Egyptian glass vessel rim (sf 1412)

Egyptian glass vessel rim (sf 106)

Egyptian glass vessel rim (sf 302)

Egyptian glass vessel rim (sf 1277)

Egyptian glass vessel rim (sf 1301)

Egyptian glass vessel rim (sf 1636)

Syrian or Egyptian glass vessel rim (sf 1108)

Egyptian glass vessel rim (sf 1356)

Egyptian glass vessel rim (sf 328)

Egyptian glass vessel rim (sf 1406)

Egyptian glass vessel rim (sf 2653)

Egyptian glass vessel rim (sf 5696)

Egyptian glass vessel rim (sf 5702)

Persian glass vessel rim (sf 273)

Eastern Mediterranean glass vessel rim (sf 6716)

Egyptian glass vessel base (sf 977)

Egyptian glass vessel base (sf 5695)

Eastern Mediterranean decorated glass body sherd (sf 1097)

Figure 7.2 Glass objects

374

Glass disc bead (sf 8124)

Glass disc bead (sf 7036)

Glass disc bead (sf 15759)

Glass spherical disc bead (sf 793)
 Glass spherical disc bead (sf 6008)
 Glass spherical disc bead (sf 15012)
 Glass tube bead (sf 1036)
 Glass tube bead (sf 186)
 Glass tube bead (sf 5769)
 Glass tube bead (sf 1680)
 Glass sphere bead (sf 110)
 Glass sphere bead (sf 6414)
 Glass elliptical bead (sf 435)
 Glass elliptical bead (sf 6095)
 Glass elliptical bead (sf 2043)
 Glass collared sphere bead (sf 5589)
 Glass collared sphere bead (sf 1625)
 Glass barrel bead (sf 1231)
 Glass collared sphere bead (sf 2929)
 Glass collared sphere bead (sf 5007)
 Glass collared sphere bead (sf 1600)

Figure 7.3 Glass objects

375

Glass collared bead (sf 1707)
 Glass squashed bead (sf 6652)
 Glass unperforated sphere bead (sf 2593)
 Glass notched and collared sphere bead (sf 5180)
 Glass ringed sphere bead (sf 1528)
 Glass unseparated bead (sf 5593)
 Glass unseparated bead (sf 5994)
 Glass notched and collared bead (sf 48)

Figure 7.4 Glass objects

376

Glass Buddha hair curl (sf 633)
 Glass ingot (sf 2825)
 Glass round profile bangle (sf 1859)
 Glass spiral bangle (sf 1786)
 Glass inlaid bichrome bangle (sf 1875)
 Glass inlaid bichrome bangle (sf 1602)
 Glass D-profile bangle (sf 6241)
 Glass finger ring (sf 6726)
 Glass kohl stick (sf 214)

Figure 8.1 Stone objects

427

Lapis lazuli triangular spacer bead (sf 5060)
 Lapis lazuli faceted bead (sf 2595)
 Lapis lazuli lugged angular bead (sf 6689)
 Greenstone squashed collar bead (sf 6076)
 Greenstone conch-shaped bead (sf 2947)
 Greenstone pendant (sf 199)
 Carnelian ring (sf 10044)
 Carnelian ring (sf 15855)
 Carnelian ring (sf 7044)
 Carnelian ring (sf 7162)
 Carnelian sphere (sf 17281)
 Carnelian squashed sphere (sf 15136)
 Carnelian barrel bead (sf 6297)
 Carnelian barrel bead (sf 7123)
 Carnelian button bead (sf 6650)
 Carnelian faceted bead (sf 10568)
 Agate lugged sphere bead (sf 2231)
 Agate lugged sphere bead (sf 2232)
 Agate oval bead (sf 2078)

Figure 8.2 Stone objects

Agate sphere bead (sf 6485)
Chalcedony rod or undrilled blank (sf 5141)
Chalcedony flat cube-shaped bead (sf 5667)
Garnet faceted bead (sf 16255)
Amethyst lugged barrel bead (sf 7014)
Clear quartz shaped bead blank or ring waste (sf 5284)
Smoky quartz spherical disc bead (sf 2798)
Smoky quartz shaped bead blank (sf 2799)
Clear quartz ring (sf 6519)
Clear quartz oval bead (sf 1565)
Clear quartz oval bead (sf 2502)
Clear quartz hexagonal tube bead (sf 16998)
Clear quartz ring blank (sf 2149)
Smoky quartz waste ring core (sf 5025)
Smoky quartz shaped bead blank (sf 8128)
Quartzite lugged sphere bead (sf 2216)
Quartzite lugged sphere bead (sf 2943)
Smoky quartz hexagonal tube bead (sf 16291)
Clear quartz intaglio or ring blank (sf 792)
Clear quartz stupa (sf 1609)

Figure 8.3 Stone objects

Quartz crystal (sf 10523)
Clear quartz flake (sf 8070)
Carnelian bead blank (sf 284)
Amethyst bead rough-out (sf 2212)
Amazonite ground bead blank (sf 337)
Clear quartz polished and partially drilled bead (sf 1565)
Drilled and completed carnelian barrel bead (sf 7123)

Figure 10.1 Ivory and bone objects

Ivory mirror stand (sf 10196)

Figure 10.2 Ivory and bone objects

Ivory draftsman (sf 6619)

Figure 10.3 Ivory and bone objects

Ivory handle (sf 6530)
Ivory bangle (sf 8278)
Ivory bangle (sf 7236)
Ivory bangle (sf 1569)
Ivory disc (sf 15686)
Bone stylus (sf 15115)
Bone stylus (sf 16673)
Bone stylus (sf 10459)
Ivory stylus (sf 15026)
Bone arrowhead (sf 15687)
Bone arrowhead (sf 16589)
Bone cube (sf 5594)

Figure 10.4 Ivory and bone objects

Ivory plaque (sf 6810)
Bone plaque (sf 6988)

Figure 10.5 Ivory and bone objects

Bone plaque (sf 6981)
Bone plaque (sf 6372)

Figure 10.6 Ivory and bone objects

Ivory vessel lid (sf 6370)

List of Figures

Figure 10.7 Ivory and bone objects Ivory vessel base (sf 6970)	617
Figure 10.8 Ivory and bone objects Ivory vessel lid (sf 8025)	618

LIST OF MAPS

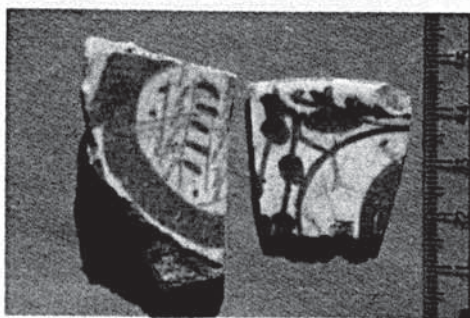
Drawn by Steven Cheshire

Map 1	Map showing Indian Ocean sites mentioned in Chapter 1: Introduction	3
Map 2	Map showing Sri Lankan sites mentioned in Chapter 1: Introduction	4
Map 3	Map showing Indian Ocean sites mentioned in Chapter 2: Coins	21
Map 4	Map showing Sri Lankan sites mentioned in Chapter 2: Coins	22
Map 5	Map showing Indian Ocean sites mentioned in Chapter 3: Metal Objects	57
Map 6	Map showing Sri Lankan sites mentioned in Chapter 3: Metal Objects	58
Map 7	Map showing Indian Ocean sites mentioned in Chapter 4: Metal-working Residues	87
Map 8	Map showing Sri Lankan sites mentioned in Chapter 4: Metal-working Residues	88
Map 9	Map showing Indian Ocean sites mentioned in Chapter 5: Glazed Ceramics	119
Map 10	Map showing Sri Lankan sites mentioned in Chapter 5: Glazed Ceramics	120
Map 11	Map showing Indian Ocean sites mentioned in Chapter 6: Unglazed Ceramics	279
Map 12	Map showing Sri Lankan sites mentioned in Chapter 6: Unglazed Ceramics	280
Map 13	Map showing Indian Ocean sites mentioned in Chapter 7: Glass Objects	359
Map 14	Map showing Sri Lankan sites mentioned in Chapter 7: Glass Objects	360
Map 15	Map showing Indian Ocean sites mentioned in Chapter 8: Stone Objects	415
Map 16	Map showing Sri Lankan sites mentioned in Chapter 8: Stone Objects	416
Map 17	Map showing Indian Ocean sites mentioned in Chapter 9: Inscriptions and Graffiti	457
Map 18	Map showing Sri Lankan sites mentioned in Chapter 9: Inscriptions and Graffiti	458
Map 19	Map showing Indian Ocean sites mentioned in Chapter 10: Faunal Remains	589
Map 20	Map showing Sri Lankan sites mentioned in Chapter 10: Faunal Remains	590
Map 21	Map showing Indian Ocean sites mentioned in Chapter 11: Human Remains	625
Map 22	Map showing Sri Lankan sites mentioned in Chapter 11: Human Remains	626
Map 23	Map showing Indian Ocean sites mentioned in Chapter 12: Botanical Remains	643
Map 24	Map showing Sri Lankan sites mentioned in Chapter 12: Botanical Remains	644
Map 25	Map showing Sri Lankan sites mentioned in Chapter 13: Conclusion	651

LIST OF TABLES

Table 1.1	Chronological summary of the sequence at ASW2	5
Table 2.1	Coins	23
Table 3.1	Metal objects	59
Table 3.2	Iron objects	60
Table 3.3	Copper-alloy objects	63
Table 3.4	Gold objects	65
Table 3.5	Lead objects	65
Table 4.1	Metal-working residues	89
Table 5.1	Glazed ceramics	121
Table 5.2	West Asian glazed ceramics	122
Table 5.3	East Asian glazed ceramics	123
Table 5.4	European glazed ceramics	124
Table 5.5	Locally manufactured glazed tiles	124
Table 6.1	Fine wares	281
Table 6.2	Rouletted ware	282
Table 6.3	Coarse ware rims and clay objects	283
Table 6.4	Coarse ware forms	284
Table 6.5	Coarse ware categories	292
Table 7.1	Glass objects	361
Table 7.2	Glass vessels	362
Table 7.3	Eastern Mediterranean glass vessels	362
Table 7.4	Early Islamic glass vessels	363
Table 7.5	Other glass objects	364
Table 7.6	Glass bead shapes	366
Table 7.7	Glass bead shapes from the hoard	365
Table 7.8	Glass bead colours	368
Table 7.9	Glass bead colours from the hoard	370
Table 7.10	Unformed glass	369
Table 8.1	Stone material	418
Table 8.2	Crystalline bead production at ASW2	417
Table 9.1	Inscriptions and graffiti	459
Table 9.2	Inscriptions on potsherds	460
Table 9.3	Inscriptions of catalogue 1	461
Table 9.4	Single and double <i>aksaras</i> on potsherds	463
Table 9.5a	Other graffiti signs	464
Table 9.5b	Inscriptions of catalogue 2 – single and double <i>aksaras</i>	465

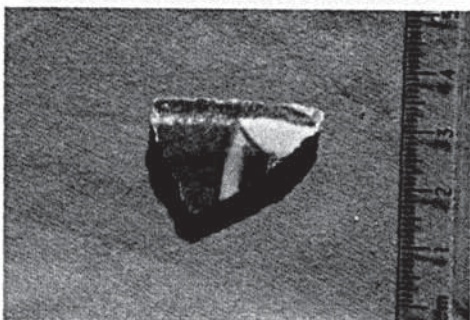
Table 9.6	Inscriptions of catalogue 3 – other letter-like graffiti	468
Table 9.7	Inscriptions of catalogue 5 – dominant signs	471
Table 9.8	Inscriptions of catalogue 6 – other signs	475
Table 10.1	Animal species represented	591
Table 10.2	Faunal remains	592
Table 10.3	Major mammals, age estimation based on tooth wear	593
Table 10.4	Minor mammals	594
Table 10.5	Minor mammal teeth	596
Table 10.6	Carved bone and ivory objects	597
Table 10.7	Birds	598
Table 10.8	Reptiles and fish	599
Table 10.9	Shells	600
Table 11.1	Human remains	627
Table 12.1	Archaeobotanical remains	645
Table 12.2	Archaeobotanical species	646



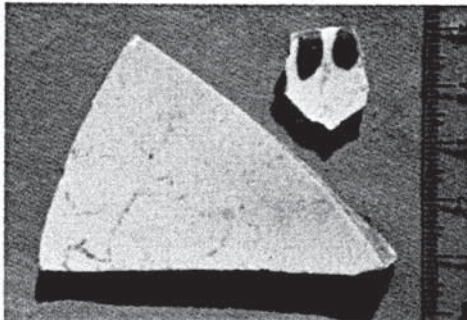
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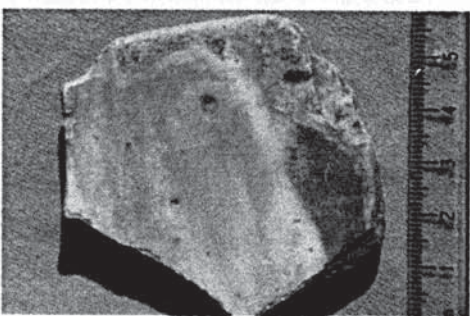
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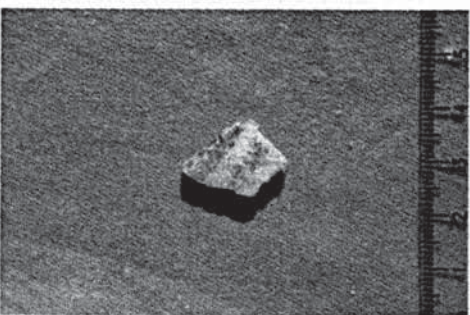
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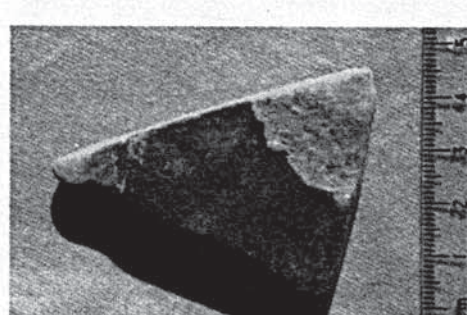
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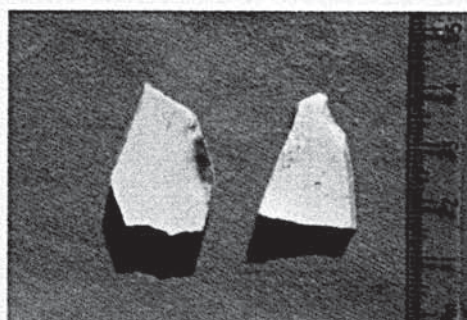
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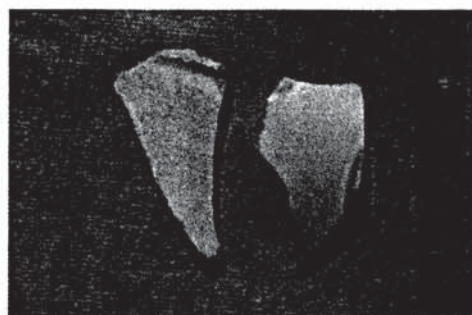
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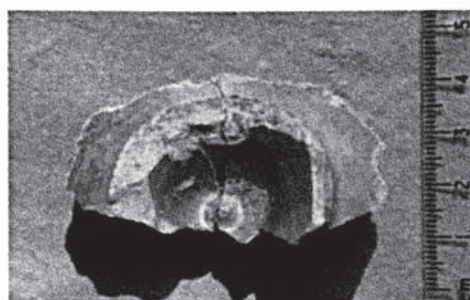


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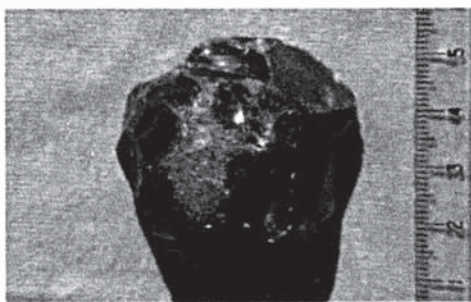
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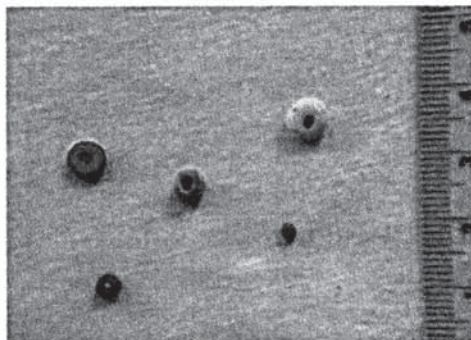
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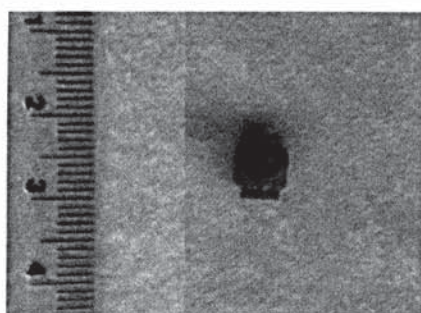


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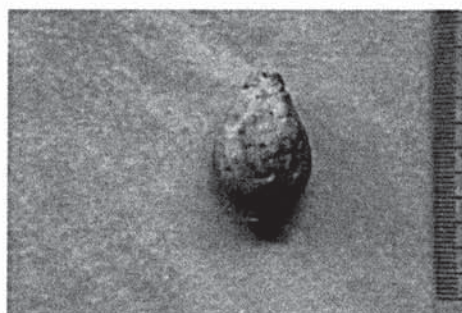


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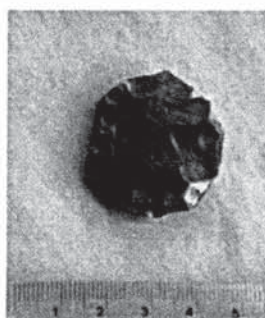
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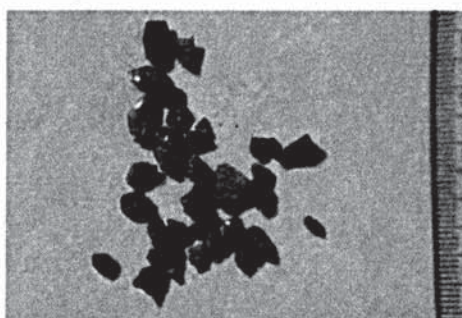
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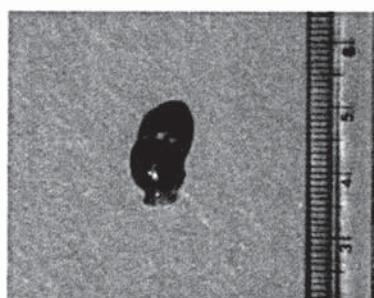
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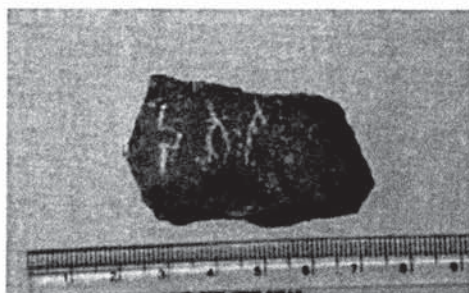
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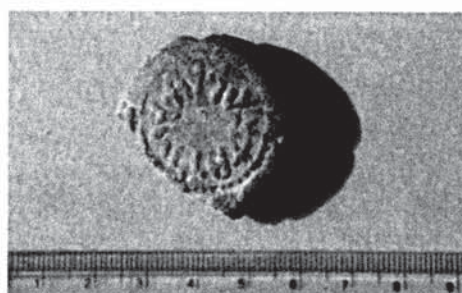
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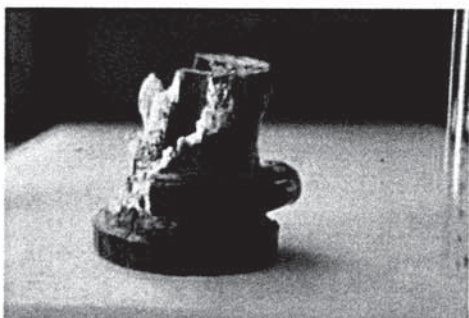
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CHAPTER 1

INTRODUCTION

Robin Coningham

This is the second of two volumes reporting the results of the British–Sri Lankan excavations at Anuradhapura Salgaha Watta 2, the first – *The Site* – having been published in 1999 (Coningham 1999). As already noted in the earlier volume, Anuradhapura is the modern capital of Sri Lanka's North Central Province, but it also represents one of the island's most important archaeological and religious sites (see Maps 1 and 2). This importance centres around the site's role as royal capital between around the second half of the first millennium BC and AD 1029, when it was largely abandoned. Even before that date the city was occupied, and we have identified a very significant sequence which stretches from the establishment of Anuradhapura as a modest Iron Age settlement to its maturation as one of the region's greatest cities (see Table 1.1). It functioned as a commercial centre as well as an administrative one, and evidence for the former is provided by substantial quantities of finished luxury goods as well as craft-working debris. This commercial network linked the city with its own hinterland but also with the island's coastal settlements, as well as with trading communities as far east as Vietnam and as far west as Berenike in Egypt (see Plates 1.1, 1.2, 1.3 and 1.4). The city also attracted significant wealth and prestige from its important role as a depository for Buddhist relics, both from within the island and within South and Southeast Asia as a whole. Indeed, the city was important enough to feature on the itinerary of the fifth-century Chinese pilgrim, Faxian (Fa Hsien). The role of Anuradhapura's Buddhist monks and nuns was also significant within the Indian Ocean region, as already noted by Dutt (1962). The relationship between the centre, Anuradhapura, and the periphery can now also be investigated more fully, making use of the excellent publications of recent work in the island's rather later southern maritime corridor (Weisshaar and Wijeyapala 2001). In conclusion, the excavations at Anuradhapura present important new evidence concerning the emergence of complex societies and urban forms in the southern half of South Asia. Indeed, the majority of projects and excavations to have examined the Early Historic period have concentrated either within the Gangetic zone or the northwest of the subcontinent. As a result, historic and proto-historic texts have tended to be more heavily emphasized in the south, backed up by the fragmentary archaeological data available. As discussed elsewhere, there are dangers in relying on these strands of evidence (Coningham 1995a;

Coningham and Lewer 2000) and recent projects have begun to significantly reassess their validity (Begley 1996).

In order to further investigate these themes and present a new seam of evidence, the British–Sri Lankan excavation team started their work in 1989. The team, directed by Robin Coningham and Raymond Allchin, worked within the framework already established by the Archaeological Survey of Sri Lanka's Anuradhapura Citadel Archaeological Project, which had itself been set up in 1984 under the direction of Dr Siran Deraniyagala, to investigate the ancient urban core of the complex. Our own trench, Anuradhapura Salgaha Watta 2 (ASW2), was excavated between 1989 and 1994 during which some 905 m³ of archaeological deposits were excavated. The trench, measuring 10 metres by 10 metres and 10 metres deep, was designed to enable successful identification of a structural sequence at the site as well as to provide a periodized artefact catalogue. Both objectives were fully realized during the four years of excavations, and the 1,887 contexts, 118 stratigraphic phases, 515 postholes, 77 pits, 42 walls, 38 slots, 17 ovens, 3 wells, 30 structural phases and 11 structural periods have provided a unique sequence through the site's development from an Iron Age village to a mediaeval metropolis. Equally importantly, it is argued that the sequence is one of unbroken continuity, providing an invaluable artefactual and structural sequence supported by a very comprehensive chronometric sequence. As noted, the excavation has provided a strong structural sequence, which starts with the erection of temporary timber structures located beside an outcrop of gneiss boulders (Coningham 1999). These structures, built during structural period K, became more solid during the period and culminated in the construction of a circular timber shelter with an estimated diameter of 2.5 m associated with a series of ancillary structures as well as a shallow well. The period, which is dated between c. 840 and 460 cal. BC, was then succeeded by structural period J, itself associated with an increase in the diameter and depth of postholes, probably indicating increasing height and longevity of structures. The period consisted of five phases of superimposed circular timber structures with wattle and daub walls and diameters ranging between 3 and 6 metres associated with pits, fences and furnaces. One of the pits, 1371, appears to have very close affinities to the pit burials of the associated Iron Age of peninsular India (Coningham

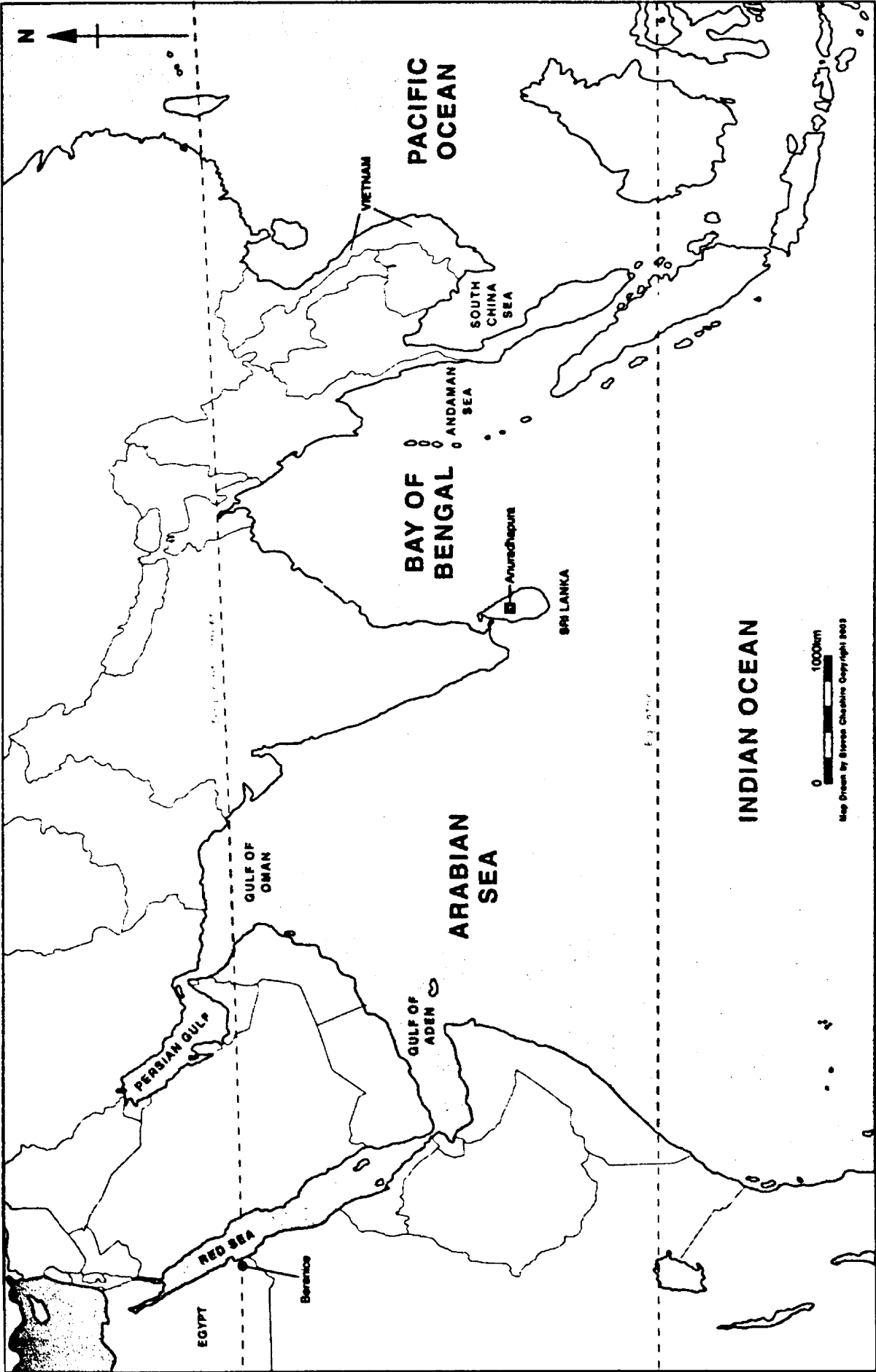
and Batt 1999), and the period has been allocated a general date range of between c. 510 and 430 cal. BC. These structures were, in turn, superseded by those of structural period I, which saw the introduction of eight phases of rectangular and square plans and the loss of circular ones in the vicinity of the trench. Built of timber with wattle and daub, phase 4 provided the first evidence of the use of fired ceramic roof tiles, complete with iron securing nails. Period I, dated between 360 and 190 cal. BC, is also contemporary with the construction of a ditch and rampart around the settlement as a whole (Coningham and Cheetham 1999). Structural period G provided evidence for the first introduction of fired brick within a sequence of five phases of rectangular structures as well as for the use of limestone slabs in foundation pits for timber pillars. This period, dated between the third century cal. BC and the latter half of the first century cal. AD, was followed by the construction of a brick platform, with at least 25 stone pillars, in the early centuries of the first millennium AD. Following its abandonment, the pillared hall was utilized as a source of building materials and was itself the focus for a series of impermanent structures between the seventh and twelfth centuries AD. The locality was fully abandoned after that date and only reoccupied, with brick and concrete structures, following the recolonization of Anuradhapura in the early twentieth century.

As noted above, the report of the Sri Lankan-British excavations at trench ASW2 has been divided into two volumes, *The Site* (Coningham 1999) and *The Artefacts*. The first volume contained six chapters which introduced and discussed the site's physical environment, the history of archaeological research at the site, its general topography, the dating and phasing of its fortifications, the archaeological and structural sequence at trench ASW2, the dating of that sequence, and the impact of the findings on the models proposed for the emergence of Early Historic urban forms in the southern half of South Asia. The present volume, *The Artefacts*, presents the artefacts recovered from the excavations at trench ASW2 and has been divided into chapters largely in terms of material. While this material approach may provide some undue complexity to the study of beads, which range from metal to glass and stone, it is strongly felt that the material base may provide a clearer basis for the understanding of artefact manufacture and provenance. Chapters 2, 3 and 4 cover the metal artefacts and have been divided into coins, metal objects and metal-working residues (the latter includes two stone moulds). Chapters 5 and 6 comprise the ceramic artefacts and have been divided into glazed and unglazed ceramics, the latter including both fine wares – such as Grey ware and Rouletted ware – and coarse wares. Chapter 7 covers glass objects and Chapter 8 the stone artefacts. Chapter 9, which contains the epigraphical evidence, forms a self-contained group as its evidence is found spread through a number of materials such as metal, stone and clay. Chapters 10, 11 and 12 include the faunal, human and botanical materials recovered from the excavation. Chapter 13, the conclusion, identifies the key findings of the excavations and is followed by an index covering both volumes.

Each artefactual chapter in this volume follows a similar organization and contains an introduction to the material, followed by a complete catalogue of each artefactual group, recording special find (sf) number, context number, structural period, stratigraphic phase and weight; dimensions are recorded if necessary. Key and representative examples are illustrated in order to provide explicit dated artefactual groupings which may go towards filling the lacunae in the chronological and artefactual sequences for the island in the light of the absence of more than preliminary reports from major excavations at the major sites of Mantai, Kantarodai, Pomparipu and Ibbankatuva. These materials, combined with the results of Dr Deraniyagala's excavations (1992), will lead towards the generation of a relative type-site for the island's Early Historic chronology. As already noted in the first volume (Coningham 1999: 3), the artefactual catalogues comprise the largest section of the present volume. Furthermore, they are purposely embedded within the text as they represent the key data sets and results from the excavations at trench ASW2, and are not an annexe to that work. Where possible, analogies and comparisons with other relevant sites and artefacts have been made. Much of this work has relied heavily on the expertise of the team of 17 international scholars who contributed formally to this volume; a number of other scholars offered additional assistance and their comments have been gratefully acknowledged. In conclusion, it is hoped that publication of this volume will allow presentation of our data and its identification and interpretation. However, we should reiterate Barry Cunliffe's words of warning (1984: viii) that

...no excavation report, however detailed, can hope to be more than an interim summary of a site. To suggest more would be naive or arrogant. A data-set will continue to be reworked by students for the foreseeable future asking new and increasingly sophisticated questions. These reports merely advertise what is available and offer some general approximations to the truth which may help those interested in these matters to design new and more penetrating analyses.

As already noted in Volume I, certain conventions adopted in the text should be explained. Firstly, De Silva's list of Sri Lanka's rulers (see Volume I: 155–8) has been accepted as an initial framework for the island's chronology (De Silva 1981). It is understood fully, however, that as this framework was based upon a combination of sources including the *Mahavamsa*, the *Culavamsa* and various inscriptions, it is not necessarily without error or omission (Coningham 1994a, 1995a). Secondly, it should be noted that, with the exception of Chapter 9: Inscriptions and Graffiti, diacritical marks have been dispensed with following the convention used in the *Cambridge Encyclopedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and the Maldives* (Robinson 1989).



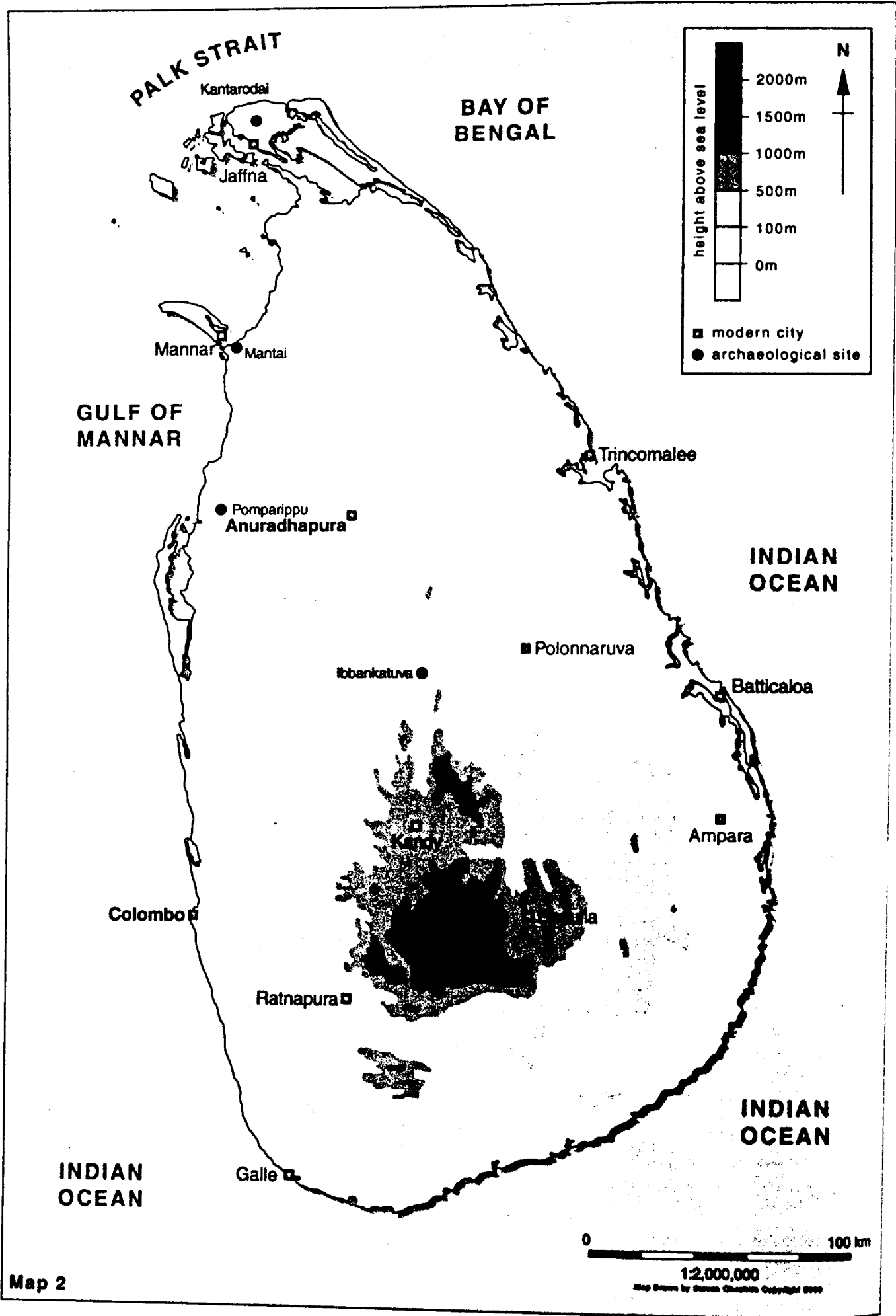


Table 1.1 Chronological summary of the sequence at ASW2 (earliest appearance)


Structural phases		
A	Enamelled sign (1918) and George VI coin (1943 AD)	c. 600 AD - 1100 AD
B5		
B4		
B3		
B2		
B1		
C, D & E	Pandyan coin, Lustre ware, Lead glazed ware, White tin glazed ware, Buff ware, Sasanian-Islamic blue glazed ware, Changsha painted stoneware, Yue green ware and Xing and Ding wares	(c. 200 AD - 600 AD)
F	Granite and Late Roman Imperial Third Brass	(c. 200 - 600 AD)
G5	Maneless Lion coin, copper alloy kohl stick, Eastern Mediterranean glass and blue glazed wares	
G4	Caitya & Fish coin	
G3	Lakshmi plaque and copper alloy mirror	
G2	Limestone and pillar foundations, Arikamedu Type 10, Nandipada & Swastika coin, Tree & Swastika coin and iron saw	(c. 200 cal BC - 130 cal AD)
G1	Elephant & Swastika coin	
H2		
H1		
I8	Punch-marked coin and copper alloy vessel with laurel leaf design	
I7		
I6	Flap-shell turtle and palm fibre	
I5		
I4	Mangrove wood species	(c. 360 cal BC - 190 cal BC)
I3	Lapis lazuli and Rouletted ware	
I2	Bamboo	
I1	Square structures, roof tile and horse	
J6	Marine shell	
J4	Camelian, marine turtle and early Brahmi inscription	
J3	Rice and early Brahmi scriptural graffiti	(c. 340 cal BC - 510 cal BC)
J2	Bunai pit?, quartz and Grey ware	
J1		
K3		
K2		(c. 460 cal BC - 840 cal BC)
K1	Round structures?, iron objects and ferrous slags and residues	

CHAPTER 2

COINS

Osmund Bopearachchi

2.1 Introduction

A total of 149 coins were recovered from trench ASW2, of which 97 are identifiable with certainty, a further 22 were identified with some reservations and the final 30 are completely unrecognizable (Table 2.1). The oldest object which might represent a coin (sf 16341), a thin, extremely worn, copper alloy square, was found in structural phase I5 and dates to the middle of the third century BC, whilst the youngest, a one cent coin of the king-emperor George VI, was minted in AD 1943. This catalogue is, therefore, of great value to numismatic study as it represents an almost unique stratified collection of coins straddling over a millennium and a half at a South Asian settlement site (see Maps 3 and 4). When cataloguing the coins in series, we have attempted to follow the classification adopted by H.W. Codrington (1924). The identified coins consist of the following categories: Punch-marked coins (15); Elephant and *Swastika* (3); Tree and *Swastika* (10); *Nandipada* and *Swastika* (2); Tree and *Caitya* (6); *Caitya* and fish (1); Lakshmi plaques (42); Maneless lion type (9); Late Roman Imperial Third Brass (5); Lakshmi type (1); Pandya coins (2); and British Period (1). Although 22 of the remaining coins are in an extremely worn condition and have been catalogued under "Unidentified coins", we have made an attempt to indicate, though not with certainty, the series to which some of them may belong. These include: Punch-marked coin (1); Elephant and *Swastika* (7); Tree and *Swastika*, or Tree and *Caitya* (8); Lakshmi plaques (2); Late Roman Imperial Third Brass (2); Humped bull and symbol,  (1); and Elephant and Fish type (1). Thirty coins were completely unidentifiable.

2.2 The coin catalogue

The following catalogue contains all 149 examples of coins recovered from trench ASW2. It supersedes earlier reports of the identification and phasing of the coins from ASW2 (Coningham, 1990, 1991; Coningham and Allchin, 1992, 1995). Coins of the same type have been arranged in accordance with decreasing weight. The following abbreviations have been used: AV = gold; AR = silver; AE = bronze. Most of the illustrations of the coins are slightly enlarged, but exact dimensions are given in the catalogue.

2.2.1 Punch-marked coins

Punch-marked coins represent the earliest finds of coinage at ASW2, the first having been found in I5. A total of fifteen identified coins of this type were recovered, two from structural period I, four from period G, six from period F,

two from periods C, D & E, and one from period B. They cover, therefore, a time span from the middle of the third century BC to the turn of the first millennium AD. Similar punch-marked coins have been recovered from the Gedige site at the Citadel (Sirisoma 1972: 147), the Jetavana and Abhayagiri viharas at Anuradhapura (Ratnayake, pers. comm.; Wickramagamage *et al.* 1984: 369; Wickramagamage 1984: 73), Mullaittivu and Tissamaharama (Parker 1909: 468).

Rectangular. AR (cf. Codrington 1924: pl. 1, 1)

Because of the extremely worn state of these coins, apart from a few exceptions, none of the symbols – either on the obverse or reverse – is visible.

Special find no: 417 Context: 121^{ae}
Stratigraphic Phase: XCV Weight: 2.5g
Dimensions: 1.4 x 1.2cm
Comments: With sun symbol.
[Plate 2.1]

Rectangular. Silver-plated.

Special find no: 79 Context: 24^{ae}
Stratigraphic Phase: C Weight: 2.7g
Dimensions: 1.2 x 1.2cm
Comments With six-armed symbol.

Special find no: 2829 Context: 358^{ae}
Stratigraphic Phase: XCIII Weight: 2.1g
Dimensions: 1.4 x 1.0cm


Special find no: 2804 Context: 374^{aw}
Stratigraphic Phase: XCIII Weight: 1.9g
Dimensions: 1.2 x 1.2cm.

Rectangular. No traces of silver plating, only the copper core is left.

Special find no: 2885 Context: 376^{aw}
Stratigraphic Phase: LXXXVI Weight: 2.8g
Dimensions: 1.6 x 1.4cm

Special find no: 16273 Context: 728^{aw}
Stratigraphic Phase: LIV Weight: 2.7g
Dimensions: 1.4 x 1.2cm

Special find no: 15802 Context: 714^{aw}
Stratigraphic Phase: LIV Weight: 2.6g
Dimensions: 1.4 x 1.3cm

Comments: With triple *caitya* symbol 
[Plate 2.1]

Special find no: 715 Context: 284^{ae}
Stratigraphic Phase: XCV Weight: 2.5g
Dimensions: 1.4 x 1.1cm

Special find no: 1741 Context: 307ae
Stratigraphic Phase: XCIII Weight: 2.2g
Dimensions: 1.3 x 1.2cm

Special find no: 1697 Context: 304ae
Stratigraphic Phase: XCIII Weight: 1.8g
Dimensions: 1.3 x 1.1cm

Special find no: 6015 Context: 364ae
Stratigraphic Phase: XCIII Weight: 1.8g
Dimensions: 1.2 x 1.2cm
Comments With sun symbol.

Special find no: 10181 Context: 663ae
Stratigraphic Phase: LXVI Weight: 1.7g
Dimensions: 1.4 x 1.3cm

Special find no: 10106 Context: 616ae
Stratigraphic Phase: LXX Weight: 1.6g
Dimensions: 1.4 x 1.4cm

Round. Silver-plated.

Special find no: 2803 Context: 374nw
Stratigraphic Phase: XCIII Weight: 2g
Dimensions: 1.3cm
Comments With six-armed symbol.
[Plate 2.1]

Round silver-plated coin. No traces of silver plating, only the copper core is left.

Special find no: 6194 Context: 376nw
Stratigraphic Phase: LXXXVI Weight: 3g
Dimensions: 1.4cm

2.2.2 Elephant and Swastika


Three Elephant and Swastika coins were positively identified at ASW2, one in period H and two in period G. The earliest was found in structural phase H1, dating to the second century BC. A further seven extremely worn coins may also tentatively be attributed to this category. They include one from the final phase of period I, one from period H and five from period G. Found elsewhere within the Citadel (Deraniyagala 1992: 712), they have also been identified at the Abhayagiri Vihara (Wickramagamage *et al.* 1984: 369; Wickramagamage 1984: 73) and Puliyanikulam at Anuradhapura, and also at Tissamaharama, Mantai, Mihintale, Vallipuram and Iranamadu (Codrington 1924: 20).


Circular. AE. (cf. Codrington 1924: 20–21, pl. I, 7).


Obv. Elephant walking r., trunk extended. Above four symbols:



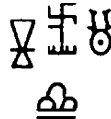
A. Above the elephant, symbol: .


B. In the middle, swastika revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line: .


C. To l., three-branched tree in an enclosure, each branch ending in a triple fork, the enclosure is divided into four compartments by a vertical and a horizontal line: .

D. To r., caitya of three cells, the two bottom ones are contiguous: .

Rev. Four symbols arranged:




A. In the middle, swastika revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line: .

B. Below, caitya of three cells, the two bottom ones are divided by space, beneath a horizontal line: .

C. To l. symbol: . To r. nandipada symbol: .

Special find no: 15990 Context: 715ae
Stratigraphic Phase: LXII Weight: 16.7g
Dimensions: 3.4cm
Comments: Apart from the nandipada symbol, the symbols on the reverse are illegible.
[Plate 2.1]

Special find no: 10205 Context: 659Se
Stratigraphic Phase: LXXII Weight: 12.7g
Dimensions: 3.5cm
Comments: Symbols on the obverse are illegible; on the reverse the



nandipada symbol has the form  with extra two dots above it.
[Plate 2.1]



Special find no: 8283 Context: 501ae
Stratigraphic Phase: LXXVI Weight: 9.1g
Dimensions: 2.6cm
Comments: Apart from the swastika, the symbols on the reverse are illegible.

2.2.3 Tree and Swastika

Ten coins belonging to the Tree and Swastika type were recovered from trench ASW2, seven from period G, one from period F and two from period C, D & E. The earliest example was found in structural phase G2 and dates to the first century BC. Tree and Swastika coins have also been reported from excavations at the Jetavana Vihara in Anuradhapura (Ratnayake 1984: 48) and at Mantai (Carswell and Prickett 1984: 68), Kataragama and Kantarodai (Codrington 1924: 22–23).

Type 1. Circular. AE. (cf. Codrington 1924: 23, iii)


Obv. Five-branched tree within enclosure of twelve compartments divided by four vertical and two horizontal lines: . To r. symbol: .



Rev. *Swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line :  . To r. symbol: .

Special find no: **2846** Context: **364ne**
Stratigraphic Phase: **XCII** Weight: **2.9g**
Dimensions: **2cm**
[Plate 2.1]

Type 2. Circular. AE. (cf. Codrington 1924: 23)


Obv. Five-branched tree within enclosure of six compartments divided by one horizontal and two



vertical lines:  . To r. indistinct symbols.

Rev. *Swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line :  . To r. *nandipada* symbol, a group of three dots above: .

Special find no: **6877** Context: **470sw**
Stratigraphic Phase: **LXXXI** Weight: **2.7g**
Dimensions: **2.2cm**
[Plate 2.1]

Type 3. Circular. AE. (cf. Codrington 1924: 23, 1 B. i)



Obv. Within double-line circle, five-branched tree within enclosure of four compartments divided by a vertical and a horizontal line. The tree top and each branch end in a group of three dots. two branches spring from the base of the tree at the enclosure : .



Rev. Within double-line circle, *swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line :  , group of three dots to l. To r. *nandipada* symbol, a group of three dots above: .

Special find no: **6768** Context: **437ne**
Stratigraphic Phase: **LXXXVII** Weight: **3.3g**
Dimensions: **2.1cm**
[Plate 2.1]

Type 4. Circular. AE. (cf. Codrington 1924: 23)

Obv. Three-branched tree within enclosure of four compartments divided by a vertical and a

horizontal line:  . To l. symbol:  . To r. indistinct symbol.

Rev. *Swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line :  . To r. symbol: .

Special find no: **2542** Context: **600**
Stratigraphic Phase: **XCV** Weight: **4.9g**
Dimensions: **2.1cm**
[Plate 2.1]

On the following four coins, apart from the three-branched tree on the obverse and the railed *swastika* on the reverse, no other symbol could distinctly be seen.

Special find no: **10210** Context: **659sw**
Stratigraphic Phase: **LXXII** Weight: **3.3g**
Dimensions: **2.1cm**
Comments: **On the obverse, a single line circle.**

Special find no: **5355** Context: **416ne**
Stratigraphic Phase: **XCI** Weight: **1.8g**
Dimensions: **1.9cm**


Special find no: **6505** Context: **414sw**
Stratigraphic Phase: **XCI** Weight: **1.2g**
Dimensions: **1.3cm**
Comments: **Broken piece.**

Special find no: **2407** Context: **375sw**
Stratigraphic Phase: **LXXXVIII** Weight: **1.7g**
Dimensions: **1.7cm**

Type 5. Square. AE.

Obv. Three-branched tree within enclosure of four compartments divided by a vertical and a

horizontal line: .

Rev. *Swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line : .

Special find no: **7163** Context: **495sw**
Stratigraphic Phase: **LXXX** Weight: **1.5g**
Dimensions: **1.2 x 1.2cm**
[Plate 2.1]

Special find no: **2410** Context: **274ne**
Stratigraphic Phase: **XCV** Weight: **0.7g**
Dimensions: **1.4 x 1.4cm**




2.2.4 Nandipada and Swastika

Only two coins of the *Nandipada* and *Swastika* category were recovered from trench ASW2: sf 6171 was found in structural phase G5 and sf 15864 in structural phase G2. The *nandipada* is one of the symbols on the reverse of most Elephant and *Swastika* coins and on some Tree and *Swastika* coins. The *swastika* symbol is extremely common, being found on Elephant and *Swastika*, Tree and *Swastika* and Tree and *Caitya* coins and on Lakshmi plaques.

Circular. AE.




Type 1.

Obv. *Nandipada* symbol in the middle, to l. indistinct symbol.

Rev. *Swastika* revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line :  . To r. either *nandipada* symbol:  or .

Special find no: 6171 Context: 381ae
Stratigraphic Phase: LXXXIX Weight: 3.3g
Dimensions: 1.9cm
Comments: This coin was found at the bottom of a large storage vessel. [Plate 2.2]

Type 2.



Obv. Nandipada symbol in the middle: 
Rev. Swastika revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line: . To r. symbol: .

Special find no: 15864 Context: 615nw
Stratigraphic Phase: LXVIII Weight: 3.4g
Dimensions: 2cm
[Plate 2.2]

2.2.5 Tree and Caitya

A total of six coins belonging to the Tree and Caitya category were recovered, five from structural period G and one from period B. The earliest examples, sfs 15067 and 15642, come from structural phase G2 and can be dated to the first century BC. While the tree symbol is found in Elephant and Swastika and Tree and Swastika coins, the caitya is found in Elephant and Swastika and Caitya and Fish coins.

Rectangular. AE.

Obv. Three-branched tree within enclosure of four compartments divided by a vertical and a horizontal line: 
Rev. Caitya of three cells surmounted by a swastika revolving r.: .

Special find no: 6629 Context: 426ae
Stratigraphic Phase: LXXXVIII Weight: 3.9g
Dimensions: 1.5 x 1.4cm
[Plate 2.2]

Special find no: 10025 Context: 605sw
Stratigraphic Phase: LXXXIII Weight: 2.6g
Dimensions: 1.5 x 1.3cm

Special find no: 15642 Context: 659me
Stratigraphic Phase: LXXII Weight: 1.8g
Dimensions: 1.4 x 1.2cm


Special find no: 15067 Context: 601ae
Stratigraphic Phase: LXXII Weight: 1.6g
Dimensions: 1.3 x 1.1cm

Special find no: 7017 Context: 427me
Stratigraphic Phase: XCI Weight: 1.4g
Dimensions: 1.5 x 1.3cm





Special find no: 59 Context: 19sw
Stratigraphic Phase: CX Weight: 0.8g
Dimensions: 1.1 x 1.1cm

2.2.6 Caitya and Fish

Only one example of this category was found. Its occurrence in structural phase G4 suggests a date of the first century AD. The caitya symbol is found in Elephant and Swastika and Tree and Caitya coins, whilst the fish symbol is found in Codrington's categories of "single-die" and "Buddhist Cakram" coins (Codrington 1924: 17–19). Common in Kantarodai, this symbol is also found in southern India. This coin is so far the only known specimen of this type depicting a caitya surmounted by a chatra, recalling the earliest type of stupa in India and Sri Lanka. Three types depicted on the obverse – elephant, temple and

– and on the reverse  of this coin are similar to the ones on the coin published by M. Mitchiner (Mitchiner 1978: 629, type A).

Rectangular. AE. Pandya-inspired multi-type coin.

Obv. In a rectangular frame, at bottom to r. elephant to r.; to l. symbol: ; above to r. temple: ; to l. caitya of three cells surmounted by a chatra: 
Rev. Pandya fish symbol: .


Special find no: 6943 Context: 469ae
Stratigraphic Phase: LXXXI Weight: 8.3g
Dimensions: 2.3 x 2.1cm
[Plate 2.2]

2.2.7 Lakshmi plaques

Lakshmi plaques represent the largest category of identified coins, with a total of 42. Of these, 26 were recovered from structural period G, 9 from period F, 6 from period C, D & E, and 1 from period B. The earliest example (sf 15066) came from structural phase G2 and can be dated to the first century BC. Lakshmi plaques were recovered from the Sri Lankan–Japanese excavations at the southern gate of the Citadel in 1992 (Ueyama and Nozaki 1993: 68). Further plaques are reported from excavations at the Jetavana Vihara (Ratnayake 1984: 36–55) and the Abhayagiri monastery (Wickramagama 1984: 73), including the "minute" form recorded by Codrington (1924: 28). Parker called such plaques "oblong copper coins" and reported their discovery at Mullaitivu and Tissamaharama, as well as at Anuradhapura (Parker 1909: 468, 481). Codrington stressed their wide distribution and reported that they had been found in most of the major monuments within Anuradhapura, including the Thuparama and Kiribat Vihara, and also at Chilaw on the northwest coast and Kantarodai and Villipuram in the Jaffna Peninsula (1924: 26–31). Apart from a very few specimens, most of the coins of this series are in a worn condition and most of the details are illegible, so a general description of the types is given here, as described by Codrington (1924: 27). Coins are catalogued according to denominations by taking their dimensions into account. Since the weights vary according to the lead content of these coins, it is difficult to rely entirely on the weight standards when grouping them into denominations.

Rectangular. AE or lead. (cf. Codrington 1924: 26–31)

Obv. Goddess Lakshmi clad in a broad girdle and wearing earrings, two bracelets on the upper arms and three to five on the forearms; on the legs below the knee three to five rings, with wide anklets. She stands on a large lotus and with her hands, which are pendent, grasps two stalks of the same plant, usually springing from either side of the flower beneath her feet and ending about the level of the shoulders in a small blossom, upon each of which stands a small elephant holding a water pot in his upturned trunk, the two trunks forming an arch over her head.

Rev. Swastika revolving r., mounted on a staff and surrounded by a railing indicated by four vertical lines rising from a horizontal line: , beneath are three horizontal lines, the lowest of which is often curved upwards at either end. Two symbols on either side of the staff.

Type 1: Dimensions c. 3.5 x 1.5cm.

Special find no: 5437 Context: 385ae
Stratigraphic Phase: XCI Weight: 6.2g
Dimensions: 3.2 x 1.7cm
Comments: Lead, broken into two pieces.

Special find no: 6186 Context: 385aw
Stratigraphic Phase: XCI Weight: 6g
Dimensions: 3.2 x 1.5cm
Comments: AE and lead.
[Plate 2.2]

Special find no: 6057 Context: 365aw
Stratigraphic Phase: XCII Weight: 6g
Dimensions: 3.5 x 1.6cm
Comments: Lead.

Special find no: 6419 Context: 409ae
Stratigraphic Phase: LXXXVIII Weight: 2.4g
Dimensions: 3.5 x 1.6cm

Type 2: Dimensions c. 2.8 x 1.4cm.

Special find no: 6542 Context: 416ae
Stratigraphic Phase: XCI Weight: 3.7g
Dimensions: 2.5 x 1.4cm

Special find no: 2406 Context: 364ae
Stratigraphic Phase: XCII Weight: 2.8g
Dimensions: 2.6 x 1.5cm

Special find no: 6063 Context: 365aw
Stratigraphic Phase: XCII Weight: 2.4g
Dimensions: 2.9 x 1.36cm
[Plate 2.2]

Special find no: 5652 Context: 367aw
Stratigraphic Phase: XCII Weight: 2.4g
Dimensions: 3.1 x 1.7cm

Special find no: 2226 Context: 324ae
Stratigraphic Phase: XCV Weight: 2g
Dimensions: 2.4 x 1.6cm
Comments: Crude imitation.

Special find no: 2911 Context: 367aw
Stratigraphic Phase: XCII Weight: 1.8g
Dimensions: 2.8 x 1.3cm

Type 3: Dimensions c. 2 x 1.2cm.

Special find no: 6591 Context: 422aw
Stratigraphic Phase: XCI Weight: 4.6g
Dimensions: 2 x 1.2cm
Comments: Lead.

Special find no: 6563 Context: 403ae
Stratigraphic Phase: XCI Weight: 3.8g
Dimensions: 1.9 x 1.3cm
Comments: Lead.

Special find no: 6177 Context: 385ae
Stratigraphic Phase: XCI Weight: 2.8g
Dimensions: 1.9 x 1.4cm

Special find no: 6434 Context: 416ae
Stratigraphic Phase: XCI Weight: 2.1g
Dimensions: 1.9 x 0.9cm

Special find no: 6460 Context: 415ae
Stratigraphic Phase: XCI Weight: 1.9g
Dimensions: 2.1 x 0.8cm

Special find no: 711 Context: 197aw
Stratigraphic Phase: XCV Weight: 1.2g
Dimensions: 1.7 x 1.3cm
Comments: Lead, broken into two pieces.

Special find no: 2967 Context: 367aw
Stratigraphic Phase: XCII Weight: 1g
Dimensions: 2 x 0.9cm

Type 4: Dimensions c. 1.5 x 0.8cm.

Special find no: 6695 Context: 416ae
Stratigraphic Phase: XCI Weight: 1.8g
Dimensions: 1.6 x 1cm

Special find no: 6119 Context: 326ae
Stratigraphic Phase: XCV Weight: 1.5g
Dimensions: 1.4 x 0.9cm

Special find no: 5457 Context: 389aw
Stratigraphic Phase: XCII Weight: 1.4g
Dimensions: 1.5 x 0.8cm

Special find no: 6658 Context: 416ae
Stratigraphic Phase: XCI Weight: 1.1g
Dimensions: 1.6 x 0.5cm
[Plate 2.2]

Special find no: 6358 Context: 399ae
Stratigraphic Phase: XCI Weight: 1g
Dimensions: 1.7 x 0.7cm

Special find no: 6335 Context: 399ae
Stratigraphic Phase: XCI Weight: 1g
Dimensions: 1.5 x 0.7cm

Special find no: 8634 Context: 416ae
Stratigraphic Phase: XCI Weight: 1g
Dimensions: 1.4 x 0.7cm
Comments: Lead.

Special find no: 7033 Context: 494ae
Stratigraphic Phase: LXXV Weight: 0.9g
Dimensions: 1.6 x 0.9cm
[Plate 2.2]

Special find no: **8635** Context: **416ne**
Stratigraphic Phase: **XCI** Weight: **0.8g**
Dimensions: **1.6 x 0.7cm**

Special find no: **2888** Context: **376nw**
Stratigraphic Phase: **LXXXVI** Weight: **0.7g**
Dimensions: **1.5 x 0.9cm**

Special find no: **5354** Context: **425sw**
Stratigraphic Phase: **XCI** Weight: **0.7g**
Dimensions: **1.4 x 0.8cm**

Special find no: **6665** Context: **416ne**
Stratigraphic Phase: **XCI** Weight: **0.6g**
Dimensions: **1.4 x 0.7cm**

The following coins are in an extremely worn condition and are catalogued under this series by taking into account their shape and the few traces of types vaguely visible. They are arranged according to decreasing weight.

Special find no: **7107** Context: **494ne**
Stratigraphic Phase: **LXXV** Weight: **3.3g**
Dimensions: **1.8 x 0.9cm**

Special find no: **2956** Context: **367sw**
Stratigraphic Phase: **XCII** Weight: **2.2g**
Dimensions: **1.9 x 1.5cm**

Special find no: **5460** Context: **26ne**
Stratigraphic Phase: **CIV** Weight: **1.9g**
Dimensions: **1.7 x 1cm**

Special find no: **482** Context: **158ne**
Stratigraphic Phase: **XCV** Weight: **1.8g**
Dimensions: **2.9 x 1.5cm**

Special find no: **15093** Context: **630nw**
Stratigraphic Phase: **LXXVI** Weight: **1.5g**
Dimensions: **1.8 x 0.9cm**

Special find no: **6480** Context: **415ne**
Stratigraphic Phase: **XCI** Weight: **1.5g**
Dimensions: **1.9 x 1.2cm**

Special find no: **8251** Context: **429sw**
Stratigraphic Phase: **XCV** Weight: **1.5g**
Dimensions: **1.5 x 1cm**

Special find no: **7155** Context: **494ne**
Stratigraphic Phase: **LXXV** Weight: **1.3g**
Dimensions: **1.7 x 1cm**

Special find no: **8250** Context: **429sw**
Stratigraphic Phase: **XCV** Weight: **1.2g**
Dimensions: **1.8 x 1cm**

Special find no: **15066** Context: **601ne**
Stratigraphic Phase: **LXXII** Weight: **1.1g**
Dimensions: **1.6 x 1.1cm**

Special find no: **6915** Context: **487ne**
Stratigraphic Phase: **LXXXI** Weight: **1.1g**
Dimensions: **2.1 x 1cm**
Comments: **Broken into two pieces.**

Special find no: **6823** Context: **470sw**
Stratigraphic Phase: **LXXXI** Weight: **1.1g**
Dimensions: **2.2 x 1.1cm**

Special find no: **2721** Context: **365nw**
Stratigraphic Phase: **XCH** Weight: **0.4g**
Dimensions: **1.4 x 1cm**

2.2.8 Maneless lion type

Nine Maneless lion coins were recovered from trench ASW2: two from structural period G, one from period F and six from period C, D & E. The earliest examples, sfs 6747 and 6772, were found in structural phase G5, which dates to the first and second centuries AD. Three Maneless lion coins were also recovered from the excavations at the Citadel's southern gate in 1992 (Ueyama and Nozaki 1993: 68) and a further twelve from the Jetavana Vihara, five from within ceramic vessels excavated at the foot of the main stupa (Ratnayake 1984: 36–55). A number of examples of this coin type have also been recovered from excavations at the Abhayagiri Vihara (Wickramagamage *et al.* 1984: 369; Wickramagamage 1984: 73), the Ruvanveli stupa, the Elara Sohona and the Kiribat Vihara (Codrington 1924: 25). Finds of these coins have also been reported at Kantarodai, Mantai, Kadugannawa and even in South India (*ibid.*).

Obv. In a circle maneless lion standing to r. or to l.

Rev. In a circle four dots: ☉.

Type 1. Octagonal. AE. Lion to r. (cf. Codrington 1924: 25, pl. II, no. 19).

Special find no: **2327** Context: **325ne**
Stratigraphic Phase: **XCV** Weight: **0.8g**
Dimensions: **1.5cm**
[Plate 2.2]

Type 2. Octagonal, AE. Lion to r. (cf. Codrington 1924: 25, pl. II, no. 18).

Special find no: **394** Context: **87sw**
Stratigraphic Phase: **XCV** Weight: **0.9g**
Dimensions: **2 x 1.5cm**
Comments: **Octagonal, but cut from two sides in order to reduce the weight.**
[Plate 2.2]

Type 3. Circular. AE. Lion to l. (cf. Codrington 1924: 25).

Special find no: **2918** Context: **367sw**
Stratigraphic Phase: **XCII** Weight: **2g**
Dimensions: **1.8cm**
[Plate 2.3]

Special find no: **6747** Context: **437ne**
Stratigraphic Phase: **LXXXVII** Weight: **1.3g**
Dimensions: **1.3cm**

Special find no: **5146** Context:
Stratigraphic Phase: Weight: **0.6g**
Dimensions: **1cm**
[Plate 2.3]

Type 4. Rectangular. AE. Lion to l. (cf. Codrington 1924: 25).

Special find no: **6123** Context: **326ne**
Stratigraphic Phase: **XCV** Weight: **1.6g**
Dimensions: **1.8 x 1.8cm**
[Plate 2.3]

Special find no: **6772** Context: **437ne**
Stratigraphic Phase: **LXXXVII** Weight: **1.3g**
Dimensions: **1.3 x 1.1cm**

Special find no: 5653 Context: 283me
Stratigraphic Phase: XCV Weight: 0.7g
Dimensions: 1.4 x 1.2cm

Type 5. Circular. AE. Lion to r. (cf. Codrington 1924: 25).

Special find no: 6176 Context: 276ae
Stratigraphic Phase: XCV Weight: 0.7g
Dimensions: 1.4cm

2.2.9 Late Roman Imperial Brass

Five Roman coins were identified at ASW2: two from structural period F and three from the period C, D & E. The earliest example was found in structural period F. Although we have no chronometric dates for F, we may assume it dates to c. the third and fourth centuries AD. These coins are extremely common within Sri Lanka, and hoards have been found from Kantarodai in the north to Tissamarharma in the south and from Batticaloa in the east to Mantai in the north. Within Anuradhapura itself such coins have been identified at the southern gate of the Citadel (Ueyama and Nozaki 1993: 68), the Jetavana Vihara (Ratnayake 1984) and the Abhayagiri monastery (Wickramagamage *et al.* 1984: 369; Wickramagamage 1984: 73).

Type 1. GLORIA ROMANORUM. Emperor advancing dragging the captive. Mint: Antioch (cf. Krishnamurthy 1994: 29)

Special Find no: 221 Context: 74sw
Stratigraphic Phase: XCIV Weight: 2.3g
Dimensions: 1.6cm
[Plate 2.3]

The following four coins are in an extremely worn state and are catalogued under the series of Late Roman Imperial Third Brass by taking into account their shape, weight and the few traces of the types vaguely visible.

Special find no: 5144 Context: 373me
Stratigraphic Phase: XCV Weight: 1.5g
Dimensions: 1.4cm

Comments: A male figure standing, holding spear, visible on the reverse can be the type: "Two soldiers standing, each holding spear and leaning on shield" [GLORIA ERECTUS], cf. Krishnamurthy 1994: 29.

Special find no: 677 Context: 194nw
Stratigraphic Phase: XCIII Weight: 1.3g
Dimensions: 1.3cm



Special find no: 713 Context: 211ae
Stratigraphic Phase: XCV Weight: 0.8g
Dimensions: 1.3cm
[Plate 2.3]


Special find no: 405 Context: 124nw
Stratigraphic Phase: XCV Weight: 0.3g
Dimensions: 1.1cm

2.2.10 Lakshmi type

A single example of this coin (sf 6373) was recovered from the fill of well cut 535 into the base of robber pit 313. Codrington (1924: 54) notes that this coin may be assigned to the late ninth or the tenth century AD.

Circular. AV. (cf. Codrington 1924: 59–60; Mitchiner 1979: 136, type 826)

Obv. In a circle of dots, seated figure of Lakshmi, head turned to r., left leg crossed behind right. To l. full-blown lotus: . To r. fire altar: .

Rev. In a circle of dots, legend in Nagari:  *Lakshmi*.

Special find no: 6373 Context: 410sw
Stratigraphic Phase: XCV Weight: 1g
Dimensions: 1.3cm
[Plate 2.3]

2.2.11 Pandyan coins

Two Pandyan coins were recovered from trench ASW2, both from the fills of period C, D & E. Pandyan coins have also been recovered from Mantai, Jaffna, Polonnaruwa and Attikuli (Codrington 1924: 86–89).

Type 1. Circular. AE. (cf. Codrington 1924: 87; Mitchiner 1979: 135, types 816–819; Chattopadhyaya 1977: 265, type 281).

Obv. In a partly visible border of dots, couchant humped bull with one foreleg extended r. between two lamps; above, crescent, and below, a platform of three parallel lines, the middle one being shorter than the other two.

Rev. Two fishes horizontal, the upper facing l., the lower r., between two lamps; crescent above, below, a platform of three parallel lines, the middle one being shorter than the other two.

Special find no: 2553 Context: 78sw
Stratigraphic Phase: XCV Weight: 0.9g
Dimensions: 1.6cm
[Plate 2.3]

Type 2. Circular. AE. (cf. Codrington 1924: 90, type 13.3; Prinsep 1858: 424, pl. xxxv, no. 18).

Obv. In a border of dots, couchant humped bull r. on a platform of three parallel lines, the middle one being shorter than the other two; lamp (?) in front of bull.

Rev. Legend in Nagari in two lines: *S,ri Va / ... Ka ca*. (This reading, proposed by Prinsep and followed by Codrington, is not certain.)

Special find no: 242 Context: 56sw
Stratigraphic Phase: XCV Weight: 2.1g
Dimensions: 2.1cm
[Plate 2.3]

2.2.12 British period

A single British coin – sf 6 – was found at ASW2, in structural period A. It was minted in 1943 during the reign of the king-emperor George VI.

Circular. AE. One cent.

Obv. Head of King George VI to l. Legend: GEORGE VI KING AND EMPEROR OF INDIA.

Rev. Coconut tree in middle. Legend: Ceylon one cent. 1943. to l. in Sinhalese: *Sathaya*; to r. in Tamil: *Satham*.

Special find no: 6 Context: 4sw
Stratigraphic Phase: CXIV Weight: 2.2g
Dimensions: 2.2cm
[Plate 2.3]

2.2.13 Unidentified coins

A total of 52 coins were unidentified: 3 from period I, 4 from period H, 24 from period G, 4 from period F, 12 from period C, D & E, and 5 from period B.

Circular. AE.

Owing to their extremely worn condition, the following coins cannot be identified with accuracy. Though not certain, an attempt to indicate the series to which they can be attributed has been made.

Because of their weight and dimensions, sfs 10207, 10009, 15111, 15800, 15117, 15100 and 15018 may belong to the Elephant and *Swastika* series.

Special find no: 10207 Context: 697ne
Stratigraphic Phase: LXIV Weight: 13g
Dimensions: 2.4cm

Special find no: 10009 Context: 601ne
Stratigraphic Phase: LXXII Weight: 12.1g
Dimensions: 3.2cm

Special find no: 15111 Context: 635nw
Stratigraphic Phase: LXXIII Weight: 11g
Dimensions: 2.5cm

Special find no: 15800 Context: 714se
Stratigraphic Phase: LIV Weight: 10.7g
Dimensions: 2.4cm

Special find no: 15117 Context: 632nw
Stratigraphic Phase: LXXXIII Weight: 10.5g
Dimensions: 2.1 x 1cm
Comments: Broken into two pieces.

Special find no: 15100 Context: 615ne
Stratigraphic Phase: LXVIII Weight: 6.4g
Dimensions: 2.2cm

Special find no: 15018 Context: 610ne
Stratigraphic Phase: LXIX Weight: 5.9g
Dimensions: 2.5cm

Sfs 10212, 10167, 10024, 15801, 15683 and 8469 may belong to one of the Tree and *Swastika* or Tree and *Caitya* series.

Special find no: 10212 Context: 659se
Stratigraphic Phase: LXXII Weight: 5.9g
Dimensions: 2.2cm
Special find no: 10167 Context: 661nw
Stratigraphic Phase: LXXIII Weight: 4.3g
Dimensions: 2.1cm

Special find no: 10024 Context: 605sw
Stratigraphic Phase: LXXXIII Weight: 3.7g
Dimensions: 1.6cm

Special find no: 15801 Context: 714se
Stratigraphic Phase: LIV Weight: 3.6g
Dimensions: 2.2cm

Special find no: 15683 Context: 698nw
Stratigraphic Phase: LXIV Weight: 2.8g
Dimensions: 1.9cm

Special find no: 8469 Context: 506sw
Stratigraphic Phase: LXXVI Weight: 2.2g
Dimensions: 1.9cm

Sfs 6884 and 6965 may belong to the Late Roman Imperial Third Brass category, although it would be difficult to differentiate between genuine and Indo-Roman imitations because of their worn state.

Special find no: 6884 Context: 429sw
Stratigraphic Phase: XCV Weight: 1.9g
Dimensions: 1.4cm

Special find no: 6965 Context: 429sw
Stratigraphic Phase: XCV Weight: 1.7g
Dimensions: 1.4cm

With the exception of sf 5328, the following coins cannot be identified at all.

Special find no: 754 Context: 74sw
Stratigraphic Phase: XCIV Weight: 1.9g
Dimensions: 1.6cm

Special find no: 6551 Context: 409nw
Stratigraphic Phase: LXXXVIII Weight: 1.6g
Dimensions: 1.2cm
Comments: Border of two circles are visible.

Special find no: 2962 Context: 365nw
Stratigraphic Phase: XCII Weight: 1.4g
Dimensions: 1.6cm

Special find no: 6193 Context: 376nw
Stratigraphic Phase: LXXXVI Weight: 1.1g
Dimensions: 1.9cm
Comments: Broken piece of a circular coin.

Special find no: 5294 Context: 370se
Stratigraphic Phase: XCV Weight: 0.9g
Dimensions: 1.2cm

Special find no: 2329 Context: 325ne
Stratigraphic Phase: XCV Weight: 0.8g
Dimensions: 1.3cm

Special find no: 5328 Context: 386nw
Stratigraphic Phase: XCI Weight: 0.8g
Dimensions: 1.3cm
Comments: Broken piece of a circular lead coin, some traces of *swastika*.

Coins

Special find no: 2542 Context: 401sw
Stratigraphic Phase: XCV Weight: 0.7g
Dimensions: 1.4cm

Rectangular. AE.

Owing to their extremely worn condition, the following coins cannot be identified with accuracy. Though not certain, we have made an attempt to indicate the series to which they can be attributed.

Sf 10341: the weight and dimensions correspond to the Punch-marked series. Only the copper core remains.

Special find no: 10341 Context: 880se
Stratigraphic Phase: XXXIII Weight: 7.7g
Dimensions: 1.3 x 1.3cm

Sfs 15688 and 15651: the weight and dimensions correspond either to Tree and *Swastika* (as sfs 7163 and 2410) or to Tree and *Caitya* (as sfs 6629, 10025, 15642, 15067, 7017 and 59).

Special find no: 15688 Context: 698ne
Stratigraphic Phase: LXIV Weight: 2.4g
Dimensions: 1.4 x 1.4cm

Comments: With triple *caitya* symbol . Two tiny pieces of metal or parts of a different coin were found along with it.

Special find no: 15651 Context: 605sw
Stratigraphic Phase: LXXXIII Weight: 2.1g
Dimensions: 1.3 x 1.2cm
Comments: Traces of the tree vaguely visible on the obverse.

Sf 10202: the weight and dimensions correspond to Elephant and Fish issues of the Pandyas (Mitchiner 1978: 623–4, nos 4987–5001), however this attribution cannot be confirmed.

Special find no: 10202 Context: 691ne
Stratigraphic Phase: LXV Weight: 7g
Dimensions: 2 x 1.6cm

Sfs 6552 and 224 may belong to Lakshmi plaque type 4.

Special find no: 6552 Context: 419ne
Stratigraphic Phase: LXXXVIII Weight: 2.5g
Dimensions: 1.6 x 1.1cm

Special find no: 224 Context: 25ne
Stratigraphic Phase: XCVII Weight: 0.9g
Dimensions: 1.4 x 0.8cm

Sf 465 may belong to the series Humped bull and symbol:  on the reverse.

Special find no: 465 Context: 127sw
Stratigraphic Phase: XCV Weight: 0.9g
Dimensions: 1.5 x 1.6cm

The following coins cannot be identified at all.

Special find no: 6119 Context:
Stratigraphic Phase: Weight: 4.2g
Dimensions: 1.7 x 1.5cm

Special find no: 15088 Context: 616se
Stratigraphic Phase: LXX Weight: 3g
Dimensions: 1.4 x 1.2cm

Comments: With triple *caitya* symbol .

Special find no: 7224 Context: 506sw
Stratigraphic Phase: LXXVI Weight: 2.8g
Dimensions:

Comments: Two broken pieces, perhaps not from the same coin.

Special find no: 6175 Context: 276se
Stratigraphic Phase: XCV Weight: 1.3g
Dimensions: 1.6 x 1.6cm

Special find no: 6663 Context: 416ne
Stratigraphic Phase: XCI Weight: 1.3g
Dimensions: 1.4 x 1.4cm

Special find no: 2768 Context: 365nw
Stratigraphic Phase: XCII Weight: 1.2g
Dimensions: 1.6 x 1.2cm

Special find no: 7102 Context: 490nw
Stratigraphic Phase: LXXV Weight: 1.2g
Dimensions: 1.4 x 1.2cm

Special find no: 6555 Context: 425sw
Stratigraphic Phase: XCI Weight: 1.1g
Dimensions: 1.8 x 1.4cm

Special find no: 10031 Context: 605sw
Stratigraphic Phase: XCV Weight: 1.1g
Dimensions:
Comments: Two broken pieces, perhaps not from the same coin.

Special find no: 430 Context: 134ne
Stratigraphic Phase: XCV Weight: 0.7g
Dimensions:
Comments: Two broken pieces, perhaps not from the same coin.

Special find no: 206 Context: 48ne
Stratigraphic Phase: XCVIII Weight: 0.7g
Dimensions: 2 x 1.5cm

Special find no: 158 Context: 53nw
Stratigraphic Phase: XCIX Weight: 0.6g
Dimensions: 1.1 x 1.1cm
Comments: Broken piece.

Special find no: 6906 Context: 437ne
Stratigraphic Phase: LXXXVII Weight: 0.6g
Dimensions: 1 x 0.9cm

Special find no: 209 Context: 25sw
Stratigraphic Phase: XCVII Weight: 0.6g
Dimensions:
Comments: Four broken pieces, perhaps from the same coin.

Special find no: 2884 Context: 376nw
Stratigraphic Phase: LXXXVI Weight: 0.6g
Dimensions: 1.1 x 0.9cm

Special find no: 6557 Context: 417nw
Stratigraphic Phase: XCI Weight: 0.6g
Dimensions: 1.4 x 1.2cm

Special find no: 6639 Context: 426ne
Stratigraphic Phase: LXXXVIII Weight: 0.5g
Dimensions: 1.5 x 1.2cm
Comments: Two pieces.

Special find no: 949
Stratigraphic Phase:
Dimensions: 1.9 x 0.9cm

Context:
Weight: 0.5g

Special find no: 800
Stratigraphic Phase: XCV
Dimensions: 1.2 x 1cm

Context: 158se
Weight: 0.4g

Special find no: 6180
Stratigraphic Phase:
Dimensions: 2.2 x 0.9cm

Context:
Weight: 0.4g

Special find no: 438
Stratigraphic Phase: XCV
Dimensions:
Comments: Two pieces.

Context: 100ne
Weight: 0.2g

Special find no: 444
Stratigraphic Phase:
Dimensions:
Comments: Fragmentary.

Context:
Weight: 0.1g

2.3 Conclusion

As one would expect, the two earliest structural periods at ASW2 (J and K), dating to between the eighth and fifth centuries BC, did not produce any coins. The third structural period, I, yielded the following five coins in

order of their stratigraphic phasing (the earliest identified example is highlighted in bold):

sf 16341	880se	XXXIII	15	Punch-marked?
sf 16273	728sw	LIV	18	Punch-marked
sf 15802	714sw	LIV	18	Punch-marked
sf 15800	714sw	LIV	18	Elephant & Swastika?
sf 15801	714sw	LIV	18	Tree and Swastika or Caitya?

Whilst the earliest coin (sf 16341) was recovered from the general debris which made up old land surface 880, it is interesting to note that three of the other four coins were recovered from a single context (714) representing the fill of pit 751. The last coin, sf 16273, was recovered from the fill (728) of foundation slot 737. These five coins can be dated to between the second and third centuries BC. The coins consisted of two punch-marked coins, identified with certainty (sfs 16273 and 15802), and three possible identifications of a punch-marked coin (sf 16341), an Elephant and Swastika coin (sf 15800) and a Tree and Swastika or Caitya coin (sf 15801).

It is generally believed that the earliest coins circulated in Sri Lanka were the punch-marked coins, and they have been found in their hundreds, either in hoards on archaeological sites or as stray finds. These coins were known in ancient India as *karshapana*; Panini (V, 1, 29) was the first to use this word for the monetary unit. In the Buddhist *Jataka* stories they are called *Kahapana*, and in the *Arthashastra* they are referred to as *pana*. The punch-marked coins found in Sri Lanka, without exception, belong to the category popularly known as "Imperial Series", which was minted in a vast area of India under the protection of a unifying authority. The imperial series first appeared during the formation of the Magadha empire and developed fully during the Mauryan empire. These imperial coins can also be divided into two important classes according to the workmanship. On the one hand there are some fairly large, thin coins, attributed to the pre-Mauryan and early Mauryan periods; and on the other, some smaller and thicker coins, attributed to the middle and late Mauryan periods. All the coins found in the island belong to the second category. A large number of the *karshapana* found in Sri Lanka may have first entered into circulation during the reign of the Mauryan king Asoka, under whose initiative Buddhism was introduced to the island. As Codrington (1924: 16) correctly suggested, the absence on these coins of any symbol which can be

attributed to Sri Lanka alone makes us to assume that all the genuine punch-marked coins found in the island were imported from India. Epigraphical and literary sources are not short of references to payments by kings in thousands of *karshapana* on different occasions, such as construction of religious monuments and donation to monastic communities (ibid.: 177–93). The earliest epigraphical evidence of the circulation of *karshapana* in the island dates back to the end of the third century BC. The inscription of Mampi-ta-vihara (Kāgalla District), written in the early Brahmi script, referring to *Kahapana*, indicates that trade even in early days was not by barter alone (Paranavitana 1970: no. 791). However, references to these coins in inscriptions of the succeeding periods are numerous (Codrington 1924: 16, 191–3).

The discovery, however, of a number of terracotta moulds with *karshapana* imprints in the excavations at the Gedige site at the Citadel of Anuradhapura (Sirisoma 1972: 149) and other places suggests that some of these coins were cast in Sri Lanka. The moulds examined are identical to ones found in Haryana in North India. As in India, Sri Lankan mint masters may have made these coins by casting methods, completely different from the original punching technique, during a period when no further *Kahapana* were being issued. Such an assumption may be supported by the evidence of sfs 15088, 15802 and 15688. Most of the punch-marked coins found at ASW2, as well as the ones found elsewhere in the island, are silver-plated. With the exception of sf 417, which is apparently of good silver, all the other coins of this category are either silver-plated or silver-washed. The thin silver layer has completely disappeared on most of the coins, leaving the copper core exposed. The only punch-marked coin of good silver (sf 417) was found in structural period C, D & E in the fill of a robber pit dating to between the ninth and tenth centuries AD. One silver-plated coin of this category (sf 79) was found in structural phase B2. The presence of punch-marked coins in late occupation layers in the


sequence can only be explained by the fact that they may have enjoyed a wider and longer circulation because of their high silver content.

Many of the symbols depicted on the Elephant and *Swastika* series were already present on punch-marked coins and early Indian copper coins, such as those of the Eran, Ujjain, Satavahana, Yaudheya and Mahasatrapas dynasties (Allan 1936: xcv–cxlix). They may have been struck in the island as early as the third century BC as, although the earliest positively identified coin of this series

(sf 15990) was recovered from structural period H1 and dates to the second century BC, an extremely worn coin of similar weight and dimensions (sf 15800) was recovered from a pit fill in structural phase I8. It appears that a number of circular and rectangular copper series originated from this coin type, and most of them are attested in the fourth and fifth occupational periods, H and G. The identified coins are, in order of stratigraphic phasing (the earliest identified example is highlighted in bold):


sf 15990	715	LXII	H1	Elephant & <i>Swastika</i>
sf 10181	663	LXVI	G1	Punch-marked
sf 15864	615	LXVIII	G2	Nandipada & <i>Swastika</i>
sf 10106	616	LXX	G2	Punch-marked
sf 10205	659	LXXII	G2	Elephant & <i>Swastika</i>
sf 10210	659	LXXII	G2	Tree & <i>Swastika</i>
sf 15642	659	LXXII	G2	Tree & <i>Caitya</i>
sf 15067	601	LXXII	G2	Tree & <i>Caitya</i>
sf 15066	601	LXXII	G2	Lakshmi plaque?
sf 8283	501	LXXVI	G3	Elephant & <i>Swastika</i>
sf 15093	630	LXXVI	G3	Lakshmi plaque?
sf 7033	494	LXXV	G3	Lakshmi plaque
sf 7107	494	LXXV	G3	Lakshmi plaque?
sf 7155	494	LXXV	G3	Lakshmi plaque?
sf 7163	495	LXXX	G4	Tree & <i>Swastika</i>
sf 6943	469	LXXXI	G4	<i>Caitya</i> & Fish
sf 6877	470	LXXXI	G4	Tree & <i>Swastika</i>
sf 6915	487	LXXXI	G4	Lakshmi plaque?
sf 6823	470	LXXXI	G4	Lakshmi plaque?
sf 10025	605	LXXXIII	G4	Tree & <i>Caitya</i>
sf 2885	376	LXXXVI	G5	Punch-marked
sf 6194	376	LXXXVI	G5	Punch-marked
sf 2888	376	LXXXVI	G5	Lakshmi plaque
sf 6768	437	LXXXVII	G5	Tree & <i>Swastika</i>
sf 6747	437	LXXXVII	G5	Maneless lion
sf 6772	437	LXXXVII	G5	Maneless lion
sf 6629	426	LXXXVIII	G5	Tree & <i>Caitya</i>
sf 6419	409	LXXXVIII	G5	Lakshmi plaque
sf 2407	375	LXXXVIII	G5	Tree & <i>Swastika</i>
sf 6171	381	LXXXIX	G5	Nandipada & <i>Swastika</i>
sf 7017	427	XCI	G5	Tree & <i>Caitya</i>
sf 5354	425	XCI	G5	Lakshmi plaque
sf 6591	422	XCI	G5	Lakshmi plaque
sf 6542	416	XCI	G5	Lakshmi plaque
sf 6434	416	XCI	G5	Lakshmi plaque
sf 6695	416	XCI	G5	Lakshmi plaque
sf 6658	416	XCI	G5	Lakshmi plaque
sf 8634	416	XCI	G5	Lakshmi plaque
sf 8635	416	XCI	G5	Lakshmi plaque
sf 665	416	XCI	G5	Lakshmi plaque
sf 6768	416	XCI	G5	Tree & <i>Swastika</i>
sf 6460	415	XCI	G5	Lakshmi plaque
sf 6480	415	XCI	G5	Lakshmi plaque?
sf 6768	414	XCI	G5	Tree & <i>Swastika</i>
sf 6563	403	XCI	G5	Lakshmi plaque
sf 6358	399	XCI	G5	Lakshmi plaque
sf 6335	399	XCI	G5	Lakshmi plaque
sf 5437	385	XCI	G5	Lakshmi plaque
sf 6186	385	XCI	G5	Lakshmi plaque
sf 6177	385	XCI	G5	Lakshmi plaque

The Tree and *Swastika*, *Nandipada* and *Swastika*, Tree and *Caitya* coin types, depicting the same symbols as found on the Elephant and *Swastika* series, were most probably issued during the same period and are well represented in structural period G. The most noteworthy coin found in this period is the Pandya-inspired multi-type coin – *Caitya*

and Fish (sf 6943). This coin is the only known specimen of this type depicting a *caitya* surmounted by a *chatra*, recalling the earliest type of stupas built in India and Sri Lanka. The three types depicted on the obverse – the elephant, temple and  – and the fish symbol on the reverse are similar to the ones on a coin previously

published by Mitchiner (1978: 629). He correctly dates this series c. 210–177 BC, arguing that “The earliest coinage of Ceylon shows many parallels with that of the Pandyas, by which it was inspired” (ibid.). He further argues (ibid.) that:

The initial Pandyan issues have been divided into two consecutive series of multi-type coins (c. 240–210 BC) that preceded the Pandyan campaign in Ceylon during the second century BC. The earliest coins in Ceylon bear designs derived from the second series of Pandyan multi-type coins struck during the period circa 210–175 BC and bear a group of symbols on the obverse among which an elephant normally figures. The Pandyan fish symbol is also borrowed and appears on the reverse of these earliest Sinhalese issues.

The *caitya* of three cells surmounted by a *chatra*  depicted on coin sf 6943 is probably an addition of the Sinhalese coin engraver.

It is also interesting to note that 26 of the 42 ‘Lakshmi plaques’ attested in the excavation were found in the structural period G. All of them were recovered from the last three phases of the period, 19 from the last phase, G5. A number of recent finds of Lakshmi plaques overstruck on the Elephant and *Swastika* type demonstrate that either both series were contemporary issues or that the plaques

were struck at a later date. It may not be an accident that all the Lakshmi plaques from ASW2 were unearthed from the third phase of structural period G onwards. It should be remembered that the earliest identified Elephant and *Swastika* type was attested in the preceding structural period H, and that an even earlier, worn example (sf 15800) might have been identified in structural phase I8. One of the commonest coin series found generally in Anuradhapura, known as the Maneless lion type, is attested by nine specimens from the ASW2 excavations. Drawing attention to the fact that this coin type is almost unknown in India, Codrington (1924: 25) argued that it may well be Sinhalese, as Sri Lanka’s dynastic emblem is a lion. Whatever the interpretation given to this type, it is noteworthy that two examples (sfs 6747 and 6772) were attested in the final structural phase of period G, in other words close to the end of the phase, confirming Codrington’s dating of this type to the early centuries of the first millennium AD.

The coins from the next structural period, F, are characterized by the continuation of some of the coin types already attested in the previous periods and the appearance of Late Roman Imperial Third Brass. The identified coins are, in order of stratigraphic phasing (the earliest identified example is highlighted in bold):

sf 5457	389	XCII	F	Lakshmi plaque
sf 2956	367	XCII	F	Lakshmi plaque
sf 5652	367	XCII	F	Lakshmi plaque
sf 2911	367	XCII	F	Lakshmi plaque
sf 2967	367	XCII	F	Lakshmi plaque
sf 2918	367	XCII	F	Maneless lion
sf 6057	365	XCII	F	Lakshmi plaque
sf 6063	365	XCII	F	Lakshmi plaque
sf 2721	365	XCII	F	Lakshmi plaque
sf 6015	364	XCII	F	Punch-marked
sf 2846	364	XCII	F	Tree & <i>Swastika</i>
sf 2406	364	XCII	F	Lakshmi plaque
sf 2804	374	XCIII	F	Punch-marked
sf 2803	374	XCIII	F	Punch-marked
sf 2829	358	XCIII	F	Punch-marked
sf 1741	307	XCIII	F	Punch-marked
sf 1697	304	XCIII	F	Punch-marked
sf 677	194	XCIII	F	Late Roman Imperial Third Brass
sf 221	74	XCIV	F	Late Roman Imperial Third Brass

The finding of large quantities of Late Roman Imperial Third Brass within Sri Lanka coincides with the rise in eastern trade with South Asia in the fourth and fifth centuries AD as a result of the revival of western powers through Axumite, Himyarite and Persian middlemen. It has been suggested by many numismatists that Roman coins disappeared from circulation all over the country by the middle of the seventh century. This chronological framework, proposed for the circulation of Late Roman Imperial Third Brass by Codrington (1924: 33), is further confirmed by the data obtained from ASW2. As one would

expect, all the coins of this category are found in structural periods F and C, D & E. It should also be noted that four punch-marked coins (sfs 2804, 2803, 1741 and 1697) and one Late Roman Imperial Third Brass coin (sf 677) were recovered from within pillar foundations and thus may represent votive deposits.

The following coins were found in the fills of the robber pits which represent structural period C, D & E. The identified coins are, in order of stratigraphic phasing (the earliest identified example is highlighted in bold):

sf 417	121	XCIV	C, D & E	Punch-marked
sf 715	204	XCIV	C, D & E	Punch-marked

sf 2542	600	XCV	C, D & E	Punch-marked
sf 2410	274	XCV	C, D & E	Punch-marked
sf 2226	324	XCV	C, D & E	Lakshmi plaque
sf 711	197	XCV	C, D & E	Lakshmi plaque
sf 6119	326	XCV	C, D & E	Lakshmi plaque
sf 482	158	XCV	C, D & E	Lakshmi plaque
sf 8251	429	XCV	C, D & E	Lakshmi plaque
sf 8250	429	XCV	C, D & E	Lakshmi plaque
sf 2327	325	XCV	C, D & E	Maneless lion
sf 394	394	XCV	C, D & E	Maneless lion
sf 5146	600	XCV	C, D & E	Maneless lion
sf 6123	326	XCV	C, D & E	Maneless lion
sf 5653	283	XCV	C, D & E	Maneless lion
sf 6176	276	XCV	C, D & E	Maneless lion
sf 5144	373	XCV	C, D & E	Late Roman Imperial Third Brass
sf 713	211	XCV	C, D & E	Late Roman Imperial Third Brass
sf 405	124	XCV	C, D & E	Late Roman Imperial Third Brass
sf 6373	410	XCV	C, D & E	Lakshmi coin
sf 242	56	XCV	C, D & E	Pandya
sf 2553	78	XCV	C, D & E	Pandya

Apart from some of the coins already attested in the previous structural periods, two types of Pandyan issues (sfs 242 and 2553) and one Lakshmi-type gold coin (sf 6373) were recovered from this period. It is possible that the two Pandyan coins may have entered the circulation in the ninth century AD. Chattopadhyaya, supporting the hypothesis put forward by his predecessors, argues (1977: 63) that:

To the second phase of Pandya currency may be assigned a number of types, mostly with the "bull and fish" devices. The majority of these coins have been found in Ceylon and this provenance, together with the fact that the Pandyas of the second empire almost invariably minted coins of the "standing figure/seated figure" type, would indicate that they were in all probability minted by the Pandyas of the

first empire. A broad dating may be made in terms of the political supremacy there of the Pandyas before its conquest by Rajaraja I towards the close of the tenth century.

It is interesting to note in this context that the excavations at ASW2 did not yield any coins of the Cholas, who conquered the island towards the end of the tenth century AD. If this chronology, based on numismatic evidence from ASW2, is correct, then the gold coin of 'Lakshmi type' (sf 6373) found in the structural period C, D & E should certainly be dated before the tenth century AD.

Apart from the already attested series, the structural period B did not yield any significant coins. The identified coins are, in order of stratigraphic phasing:

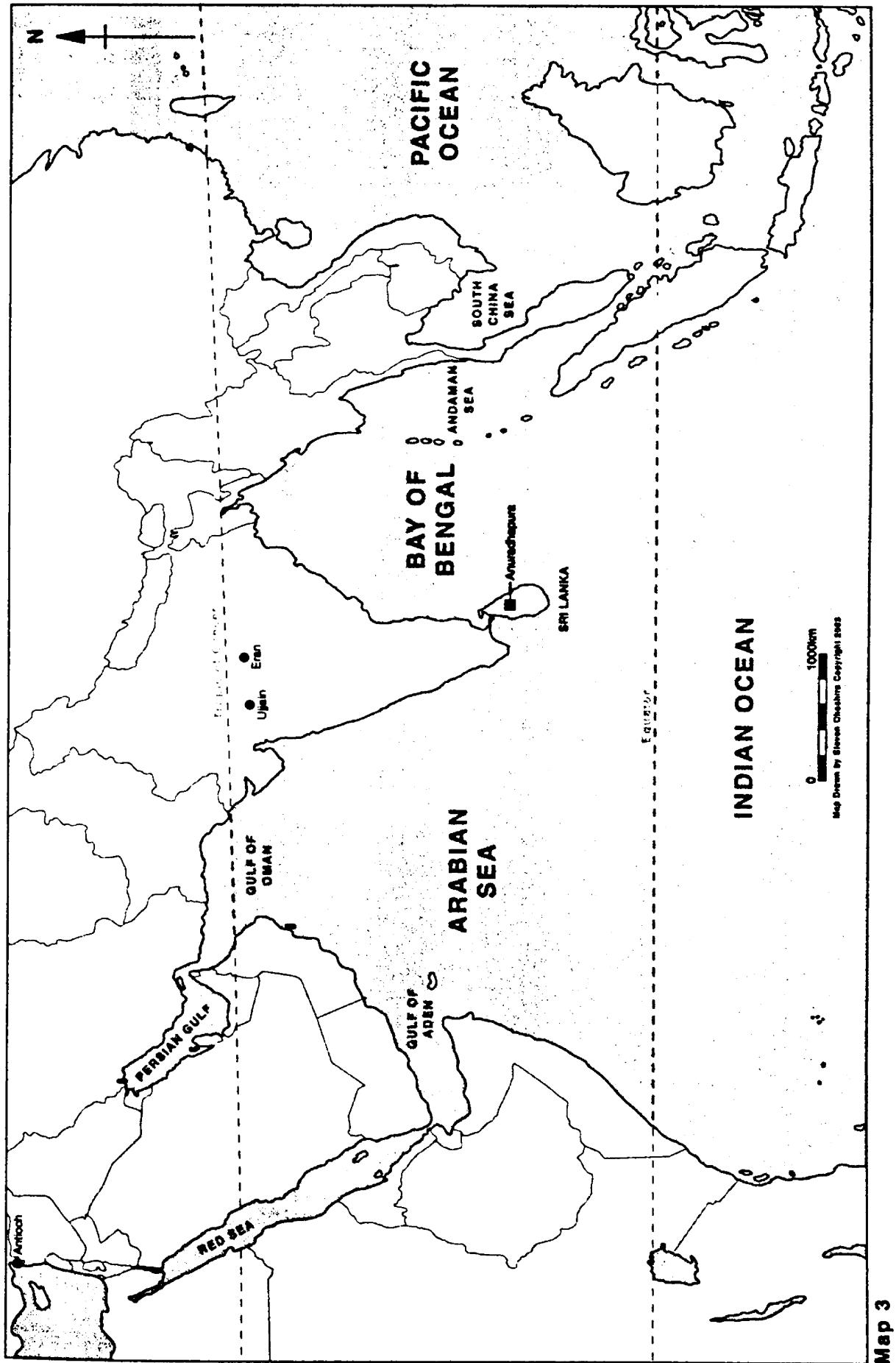
sf 79	24	C	B2	Punch-marked
sf 5460	26	CIV	B3	Lakshmi plaque
sf 59	19	CX	B4	Tree & <i>Caitya</i>

As one would expect, the most recent occupational layer – structural period A – produced a coin of the king-emperor George VI issued in 1943 (sf 97):

sf 6	4	CXIV	A	George VI one cent
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In conclusion, we may therefore state that Codrington's sequence of 1924 corresponds closely with the series from trench ASW2. We are able, however, for the first time to ascribe chronometric dates for the appearance of the various coin types. The first coins appear to be of the punch-marked variety and can be dated to the middle of the third century BC. They are followed by the Elephant and *Swastika* series in the second century BC. This series is then closely followed by the *Nandipada* and *Swastika*, Tree and *Swastika*, Tree and *Caitya*, Lakshmi plaques, and *Caitya* and Fish by the first century BC. The Maneless lion

series does not appear until the early centuries of the first millennium AD and is followed by the first appearance of the Late Roman Imperial Third Brass. The next coins to appear in the sequence are two Pandyan coins and one Lakshmi coin, which may all collectively be dated to the tenth century AD. The youngest coin to have been found at the trench was a one cent coin of the king-emperor George VI, minted in 1943.



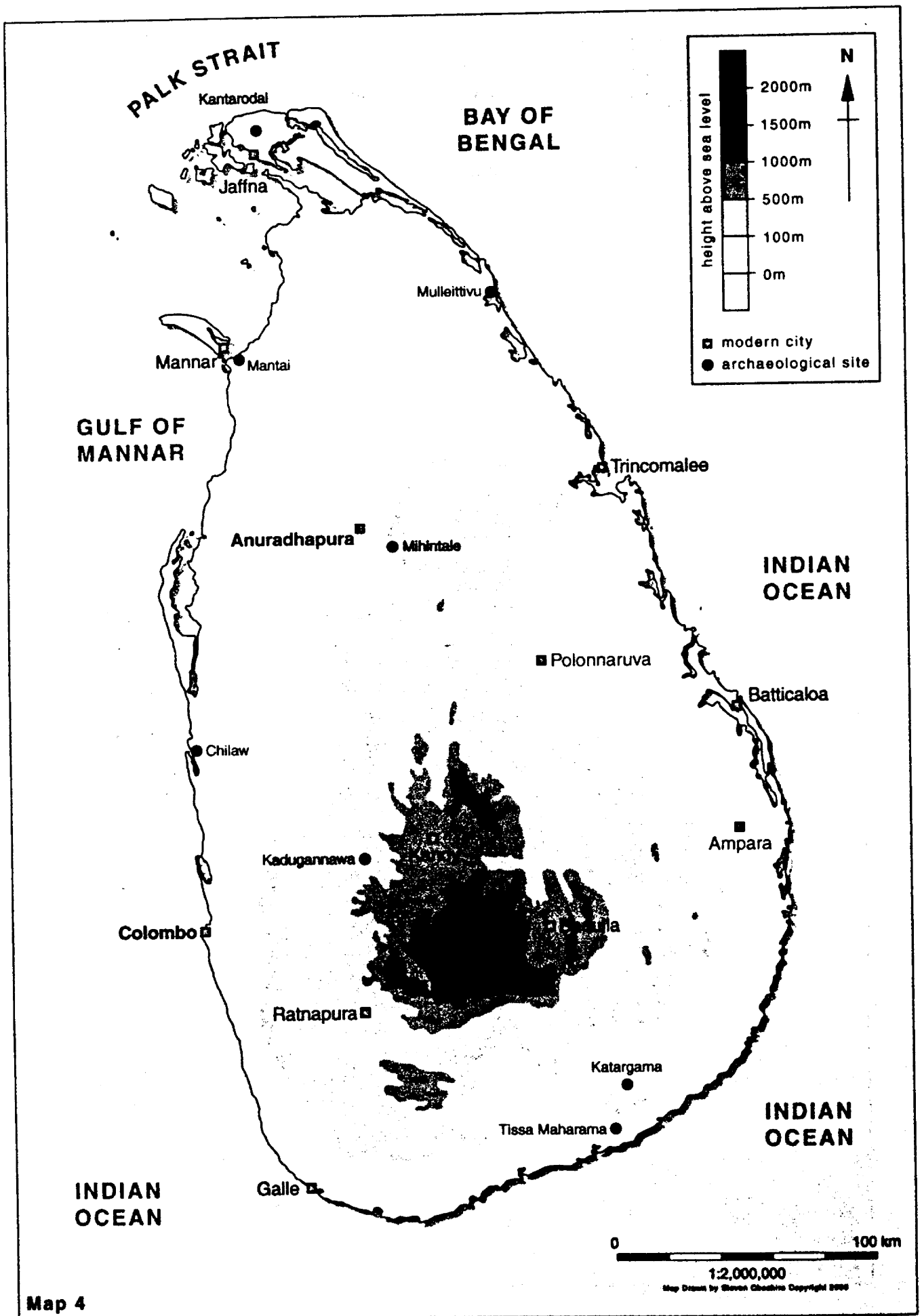


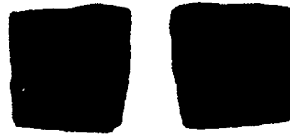
Table 2.1 Coins

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Punch-marked	number		1	2	6	4		2			15
Elephant & swastika	number					2	1				3
Tree & swastika	number			1	1	7					9
Nandi-pada & swastika	number					2					2
Tree & caltys	number		1	1		5					7
Caltys & fish	number					1					1
Lakshmi plaques	number		1	6	9	26					42
Maneless lion	number			6	1	2					9
Late Imperial Third Brass	number			3	2						5
Lakshmi type	number			1							1
Pandya	number			2							2
British	number	1									1
Unidentified	number		5	12	4	24	4	3			52
Total	number	1	8	34	23	73	6	6			149

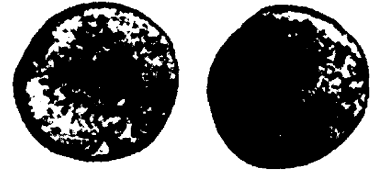
sf 417



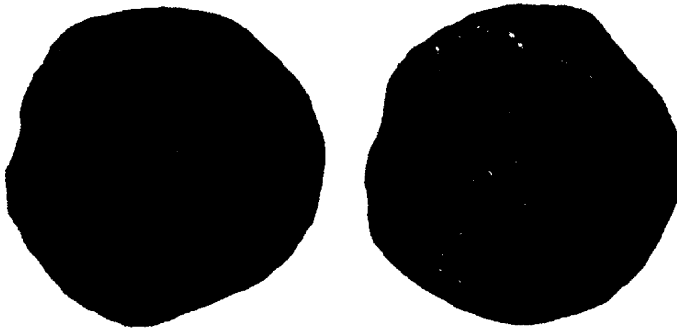
sf 15802



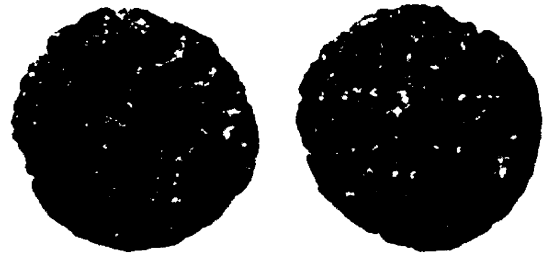
sf 2803



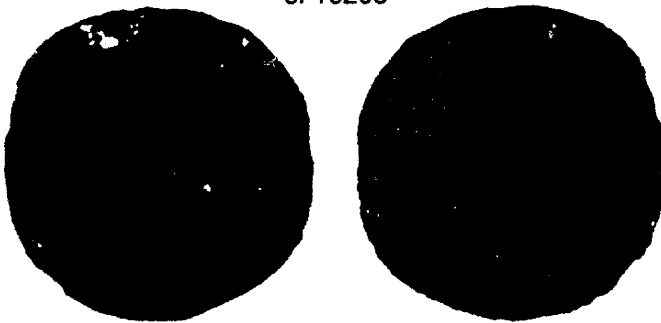
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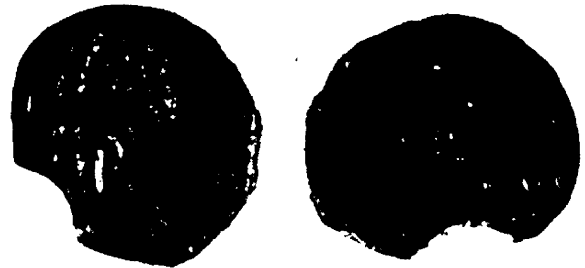
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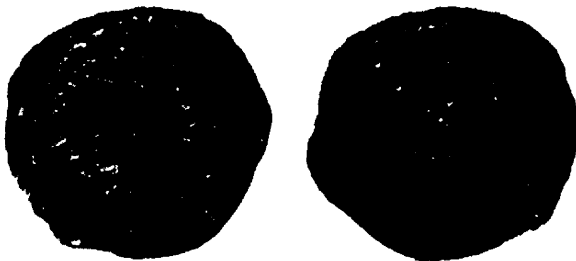
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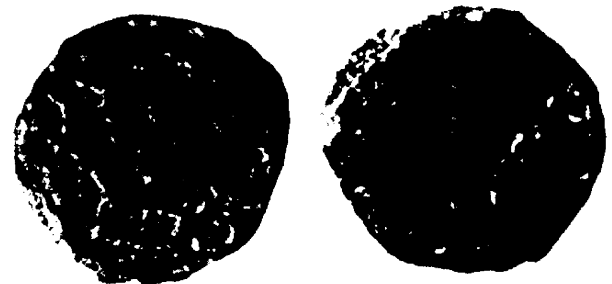
sf 6877



sf 6768



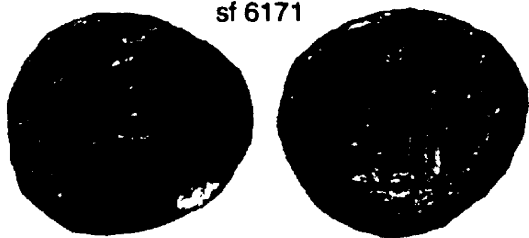
sf 2542



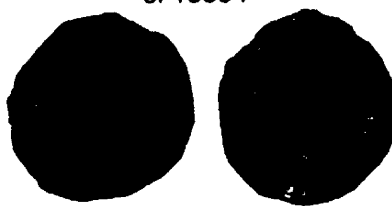
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sf 6171



sf 15864



sf 6629



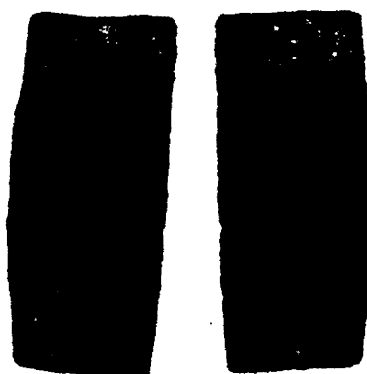
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sf 6186



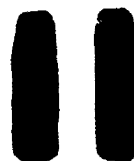
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sf 7033



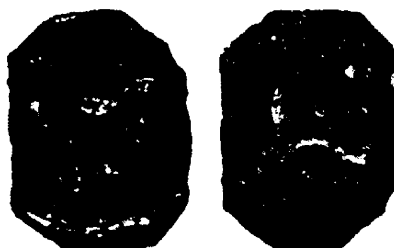
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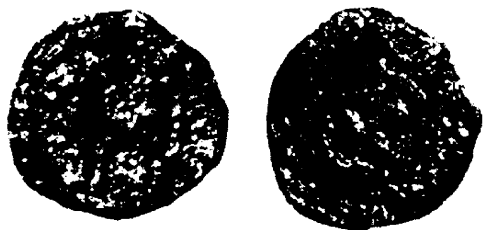
sf 2327



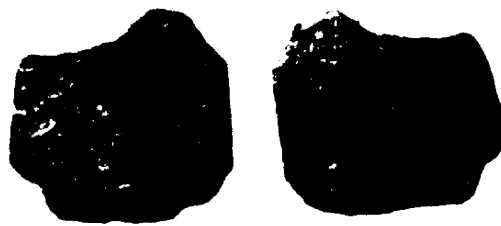
sf 394



sf 2918



sf 6123



sf 5146



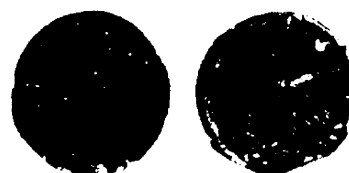
sf 221



sf 5144



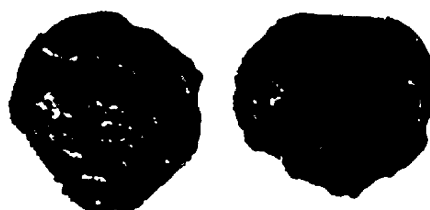
sf 713



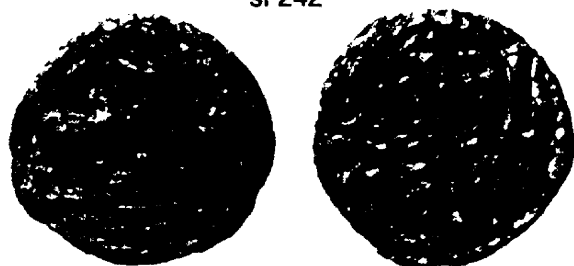
sf 6373



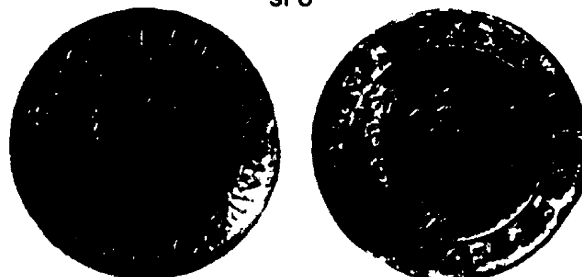
sf 2553



sf 242



sf 6



CHAPTER 3

METAL OBJECTS

Robin Coningham and Paul Harrison

3.1 Introduction

This chapter contains a detailed catalogue and description of the metal objects and fragments recovered from trench ASW2. The objects were first divided into metal groups (iron, copper alloy, lead and gold) and then, where possible, further divided into functional categories. The main aims of this chapter are twofold: firstly, to periodize the appearance and use of various forms in the ASW2 sequence (see Table 3.1); and secondly, to draw analogies between objects from ASW2 and those from other sites (see Maps 5 and 6). By doing so we hope to link our own periodized artefact sequence with those of other sites in order to confirm our chronology and to investigate possible cultural links between Anuradhapura and other sites and regions.

A total of 943 metal special finds were recorded from trench ASW2, excluding the coins (which are catalogued above in Chapter 2). They consisted of 716 iron, 216 copper-alloy, 6 lead and 5 gold special finds. Although they had been provisionally catalogued during the field seasons in Sri Lanka, the Director-General of Archaeology kindly allowed us to temporarily export to the UK most of the 943 special finds recovered. They were fully investigated and catalogued in the Conservation Laboratory of the Department of Archaeological Sciences, University of Bradford. While the half-life of an unconserved iron object is only seven years under the climatic conditions prevalent in northern Europe), the objects from ASW2 had been stored in the more destructive climate of Sri Lanka's North Central Province for four years. As a result many were already beginning to deteriorate owing to the formation of post-excavation corrosion product (β FeOOH), some being already unidentifiable. All 716 iron special finds were x-radiographed in order to illustrate further technical information as well as to provide an archival report. Radiography is the only method that can provide reliable identification of iron objects. In most instances the copper-alloy, lead and gold artefacts were examined by binocular microscopy. Some of the copper-alloy and lead objects also required partial investigative cleaning to resolve questions concerning their structure and possible function. Questions regarding the techniques and development of metal-working at ASW2, and in Sri Lanka in general, are considered elsewhere (see Chapter 4: Metal-working Residues).

The general breakdown of the four metal groups (iron, copper alloy, gold and lead) is shown in Table 3.1.

Of the 29,479.4g of metal catalogued, iron was the largest group with 27,679.78g, copper alloy came next with 1,613.45g, followed by lead with 163.67g and gold with 22.5g. It should be noted that, while objects of copper alloy, gold and lead were often favoured in antiquity for melting down and reforming, iron, owing to its ease of manufacture and high propensity for corrosion, was often just discarded. When these weights are broken down into weight of metal for each major structural phase, the pattern is very clear. The earliest periods, K and J, have very little metal. The weight rises during periods J and I until the highest count is reached in period G. After G the weights remain at a lower constant for periods F and C, D & E before dropping off in periods B and A. The earliest metal object at the site is of iron and was found in period K. The earliest copper-alloy object was found in period J, the earliest lead object in period F; the earliest gold and lead objects were also found in period F.

Where possible, analogous artefacts from other excavated sites have been cited in the hope that the ASW2 chronology can be cross-checked and general stylistic trends followed. However, this practice has proved to be difficult because many published objects are highly corroded or because the sites themselves are not adequately dated. We have therefore restricted the number to those with either high-quality artefact preservation or very strong chronologies. In the case of Sri Lankan examples, the excavations at the urban sites of Kantarodai and Mantai are still unpublished, so we have had to rely on the published data from Sigiriya, Jetavanaramaya, the 1969 Anuradhapura Gedige report, Alahana Parivena, Pomparippu, Kandy and Abhayagiri Vihara (Bandaranayake 1984, 1988, 1989; Begley 1981; Deraniyagala 1972; Prematilleke 1982a, 1982b, 1985, 1987; Ratnayake 1984; Wickramagamage 1984). The obvious drawback is that many of these are monastic sites, whereas we are examining a secular site. It is expected that confirmation of this will be forthcoming when the fourteen excavation pits in the Citadel of Anuradhapura excavated by the Archaeology Department are published. We have also attempted, where necessary, to draw further analogies with other sites in the subcontinent. We had hoped to draw parallels with metalwork from Arikamedu as we had already identified a number of very close ceramic parallels with Anuradhapura (see Chapter 6: Unglazed Ceramics), however it had only yielded five metal objects (Wheeler

1946: 104; Casal 1949). In light of this we have widened our scope to include the excellent publication of Atranjikhhera (Gaur 1983) as well as those of 'megalithic' Iron Age sites. It is important, perhaps, to stress Deraniyagala's suggestion that "the iron artefact types of proto and early Historic Peninsular India are remarkably homogenous, also that an accurate chronology cannot be based upon typology alone" (Deraniyagala 1972: 155). For simplification of interpretation we have broken tables down into major structural periods rather than individual stratigraphic phases.

3.2 Iron objects

Twenty-four categories of iron objects were identified: arrowheads, chains, saw blades, axes/adzes, spearheads, knife blades, wire, cleaver blades, needles, pins/styli, bracelets, tweezers, other objects, collars, pipes, staples, bars, sheet fittings, tapering nails, T-shaped nails, large-headed nails, L-shaped nails, mushroom-headed nails, nailshaft/bars and unidentified objects (see Table 3.2). Although the earliest object in period K was unidentifiable, the following period, J, yielded 18 objects including an arrowhead and a knife blade. The first chain, pin/styli, tweezers and structural collars are found in the next period, I, while period H yielded the first axe/adze. Period G produced the first examples of saw blades, spearheads, cleaver blades, needles, bracelets, pipe and a concentration of 2,777.29g of structural nails. Period C, D & E yielded the first staple, while period B yielded the first wire.

3.2.1 Arrowheads

Three iron arrowheads were recovered from the excavations: sfs 15969, 17405 and 10679. All were leaf-shaped and each had been manufactured from a flat sheet of iron. As is apparent from Table 3.2, their phased distribution within the trench is broad, ranging from contexts belonging to structural period G to structural period J. In the same way as the relative importance of undomesticated animals in the faunal record is stressed in Chapter 10 below, it might be suggested that some of these finds represent evidence of hunting. Special find 17405 was found within the fill of well 896, cut during structural phase I6, while sf 10679 was recovered from context 1382, the basal fill of pit 1371, cut during the activities of structural phase J3. The presence of the latter find in association with a whetstone and ceramic vessels bearing non-scriptural graffiti suggests a more deliberate deposition, which is further discussed in Chapter 11: Human Remains. Similar finds have been made at numerous 'megalithic' Iron Age and Early Historic sites and they appear to correspond with Leshnik's Category II Type E2c of tanged, leaf-shaped, bladed arrowheads (Leshnik 1974: 176).

Special find no: 15969 Context: 663nw
Stratigraphic Phase: LXVI Weight: 15.62g
Dimensions: 4.4cm long and 1cm wide. The head is 2.5cm long.
Comments: Complete arrowhead. Leaf-head shape.
[Fig. 3.1]

Special find no: 17405 Context: 1399ne
Stratigraphic Phase: XXXVI Weight: 10.09g

Dimensions: 5.7cm long and 1.7cm wide. The shaft is 2.3cm long and 0.7cm wide.

Comments: Complete arrowhead. Leaf-head shape.
[Fig. 3.1]

Special find no: 10679 Context: 1382sw
Stratigraphic Phase: XVII Weight: 17.62g
Dimensions: Blade is 7cm long and 1.9cm wide.
Comments: Complete arrowhead. Leaf-head shape.
[Plate 3.1; Fig. 3.1]

3.2.2 Chains

Two lengths of corroded chain were recovered from the same context, old land surface 977ne, below the activities of structural phase I3 and, although they do not join, they are probably from part of the same chain. Both fragments consisted of 0.4cm wide links of joined bent bars. Combined, they would have formed a chain some 7cm long. The purpose of this object is unclear, although it is possible it was used to secure small animals; such chains are commonly used for monkeys today. A 14cm length of chain (no. 107) was recovered from the excavations at the mediaeval monastic site of Alahana Parivena at Polonnaruwa (Prematilleke 1982b: 60).

Special find no: 17185 Context: 977ne
Stratigraphic Phase: XXVIII Weight: 5.85g
Dimensions: The block is 3.4 x 1.2 cm and a link is 0.4cm wide.
Comments: Very small chain fragment with complex arrangement of small bars. Probably from same object as sf 17215.
[Fig. 3.1]

Special find no: 17215 Context: 977ne
Stratigraphic Phase: XXVIII Weight: 5.25g
Dimensions: The block is 3.5 x 1.6 cm and a link is 0.4cm wide.
Comments: Very small chain fragment with complex arrangement of small bars. Probably from same object as sf 17185.

3.2.3 Saw blades

Three fragments of saw blades were identified in the x-radiography of the iron objects. Such finds are relatively rare within Early Historic sites and are interpreted by some as representing a Western import. All three were recovered from contexts belonging to stratigraphic period G. Special find 8259 was recovered from the collapse of structure G5 during stratigraphic phase XCI, sf 25001 from within the old land surface (492) below structure G3, and sf 15063 from within context 607, the fill of pit 596, which was cut during structural phase G2. It should be noted that two fragments of saw blade (nos 76 and 119) were recovered from the excavations at the mediaeval Alahana Parivena at Polonnaruwa (Prematilleke 1982b: 59-60).

Special find no: 8259 Context: 416ne
Stratigraphic Phase: XCI Weight: 25.29g
Dimensions: 4.2 x 3.1cm
Comments: Fragment of saw. Four teeth survive, possible handle fragment too.
[Fig. 3.1]

Special find no: 25001 Context: 492se
Stratigraphic Phase: LXXV Weight: 23.45g
Dimensions: 4.6cm long and 1.9cm wide.
Comments: Fragment of saw. Seven teeth either side, many gaps incomplete. Broken at ends.

Special find no: 15063 Context: 607se
Stratigraphic Phase: LXXI Weight: 22.66g

Dimensions: Joined piece is 7.5cm long, 3cm wide and 0.2cm thick.
Comments: Saw blade in five pieces, three with teeth. Nineteen teeth in total.

[Fig. 3.1]

3.2.4 Axes and adzes

Four examples of axes and adzes were identified from the collection of iron objects. They are composed of two elements: a solid blade and two phlanges designed to hold a wooden haft. All four were recovered from contexts belonging to structural periods I and G. In stratigraphic order, sf 5373 was recovered from context 409, a foundation for structural phase G5; sf 7049 was recovered from old land surface 494, below structural phase G3; sf 10085 was recovered from old land surface 616, below structural phase G2; and sf 15862 was recovered from the fill of pit 751, which was cut during structural phase I8. While Deraniyagala recovered a single tanged adze from Stratum 4A at the Anuradhapura Gedige trench (Deraniyagala 1972: 151–3), at least three of the ASW2 examples (sfs 5373, 10085 and 15862) appear to have been shaft-hole axes, as indicated by the presence of two phlanges. They fall, therefore, into Leshnik's Category II Class H4 of shaft-hole axe (Leshnik 1974: 179). Deraniyagala suggests that such objects did not occur within peninsular India until the beginning of the first millennium AD (1972: 155), however Leshnik points out that they have been common in the northern parts of the subcontinent since the beginning of the first millennium BC (1974: 179).

Special find no: 5373 Context: 409ne
Stratigraphic Phase: LXXXVIII Weight: 405.2g
Dimensions: 16.5 x 4 x 2.5cm.
Comments: Complete axe – disintegrating. Two phlanges: these do not meet.

[Plate 3.1; Fig. 3.1]

Special find no: 7049 Context: 494ne
Stratigraphic Phase: LXXV Weight: 12.7g
Dimensions: 16 x 3 x 7cm.
Comments: Very corroded axe? Splitting up, no tang survives.

Special find no: 10085 Context: 616se
Stratigraphic Phase: LXX Weight: 166.08g
Dimensions: 7.82 x 2.62cm
Comments: Axe? In two pieces that join to make complete object. Unknown use of third object (part of corroded mass). Axe is rectangular with two phlanges.

Special find no: 15862 Context: 714sw
Stratigraphic Phase: LIV Weight: 281.36g
Dimensions: 9.5 x 4.5 x 4cm.
Comments: Axe? Fragment incomplete. Head missing, but two phlanges survive.
[Fig. 3.1]

3.2.5 Spearheads

A single tapering fragment of spearhead was recovered from old land surface 616, deposited during period G. Finds of spearheads from 'megalithic' and Early Historic sites are common: Deraniyagala recovered four tapered spearheads and a further undiagnostic fragment from Stratum 4A at the Anuradhapura Gedige trench (Deraniyagala 1972: 151–3); a fragmentary tanged iron blade, possibly a spearhead, was recovered from unstratified deposits at Arikamedu (Wheeler 1946: 104); and a leaf-shaped tanged blade measuring 19cm was

recovered from the urn burial cemetery at Pomparippu (Begley 1981: 78). The single example from ASW2 probably belongs to Leshnik's Category II Class D1b socketed spearhead with tapering edges (Leshnik 1974: 175).

Special find no: 10086 Context: 616se
Stratigraphic Phase: LXX Weight: 20.17g
Dimensions: 6.8 x 2.5 x 0.8cm.
Comments: Spearhead? Tapers to almost a point, tang or socket missing.

[Fig. 3.2]

3.2.6 Knife blades

Nine knife blades were recovered from ASW2 periods J to C, D & E. Special find 6294 was recovered from robber pit fill 393, sf 5940 from the pillared hall foundations, sf 406 from the collapse of the structure G5, sfs 632, 467 and 6931 from levelling phases of G4, sf 7179 from old land surface 494, sf 10647 from the phase I6 well fill 1206, and sf 17392 from old land surface 1172. The iron knife blades from ASW2 appear to have been designed to be mounted on or in a wooden, bone or antler handle. Although the nine blades were badly corroded, two – sfs 7179 and 10125 – were provided with whittle tangs. Sfs 5940 and 6931 have straight edges tapering to a point and fall between Leshnik's Category II Class C2b and Class B1b, while sf 7179 has a straight back and rounded blade and appears to fall into Leshnik's Category II Class C2a (Leshnik 1974: 174–5).

Special find no: 6294 Context: 393sw
Stratigraphic Phase: XCV Weight: 12.04g
Dimensions: 3 x 3cm
Comments: Knife or sheet fragment.

Special find no: 5940 Context: 388sw
Stratigraphic Phase: XCIII Weight: 70.55g
Dimensions: 2 x 3cm
Comments: Three of six corroded iron fragments form a knife blade. No tang, blade incomplete with a straight back and edges tapering to a point.

Special find no: 6417 Context: 406sw
Stratigraphic Phase: XCI Weight: 64.58g
Dimensions: 3 x 5 x 5cm
Comments: Knife in three joining parts. No tang or weld, straight back and edge point lost.

Special find no: 10125 Context: 632nw
Stratigraphic Phase: LXXXIII Weight: 206.19g
Dimensions: 13.12 x 5.28 x 3.96cm
Comments: Knife? Tip missing, small whittle tang, no weld lines.

Special find no: 8454 Context: 467
Stratigraphic Phase: LXXXI Weight: 8.22g
Dimensions: 3 x 3cm
Comments: Two original edges, possible blade fragment, no weld line.

Special find no: 6931 Context: 470sw
Stratigraphic Phase: LXXXI Weight: 18.91g
Dimensions: 4 x 3cm
Comments: Tapering piece, two long edges are original, possible blade

Special find no: 7179 Context: 494ne
Stratigraphic Phase: LXXV Weight: 34.98g
Dimensions: Length is 7.5cm and width is 1.8cm. The tang is 4cm long and 0.6cm wide.

Comments: Knife with whittle tang, no point. Straight back, rounded edge.

Special find no: 10647 Context: 1206ne
Stratigraphic Phase: XXXVI Weight: 25.77g
Dimensions: 7.18 x 2.69 x 0.41cm
Comments: Thin, corroded tapering sheet – possibly a knife.

Special find no: 17392 Context: 1172se
Stratigraphic Phase: XXII Weight: 67.1g
Dimensions: 4.33 x 4.24 x 1.02cm
Comments: Very corroded, knife?

3.2.7 Wire

Only two examples of iron wire were recovered from the sequence and both were found in the final phase of period B. They represent a very late, if not intrusive, phenomenon.

Special find no: 387 Context: 4se
Stratigraphic Phase: CXIV Weight: 1.37g
Dimensions: 7.5cm long and 0.3cm diameter.

Special find no: 771 Context: 4
Stratigraphic Phase: CXIV Weight: 0.5g
Dimensions: 7cm long and 0.3cm diameter.

3.2.8 Cleaver blades

Two cleaver blades were recovered from ASW2, one (sf 6670) in the foundations of structures of phase G5 and the other (sf 10038) in old land surface 604. Both cleaver blades appear to have been designed to be mounted on or in a wooden, bone or antler handle. Both objects have been classified as cleavers, rather than knives, on the grounds that they are longer and wider than the latter. Sfs 6670 and 10038 have a whittle tang. They also have a straight back and a blade which tapers to an edge.

Special find no: 6670 Context: 409ne
Stratigraphic Phase: LXXXVIII Weight: 371.39g
Dimensions: 16cm long and 7cm wide.
Comments: Cleaver? Large sheet with a whittle tang, broken at both ends. The thin blade tapers to an edge.

[Plate 3.2; Fig. 3.2]

Special find no: 10038 Context: 604ne
Stratigraphic Phase: LXXV Weight: 101.78g
Dimensions: 9 x 6 x 0.7cm.
Comments: Cleaver fragment, but quite thin. Little of tang survives, blade incomplete too. Back is straight, blade tapers to tang.

3.2.9 Needle

An eyed needle was recovered from within period G's old land surface 470. The single example is a tool manufactured from a small iron rod. It has been classified as a needle because of the perforation or eye. As noted below, it appears to be too wide (1 cm) for use on textiles.

Special find no: 6882 Context: 470sw
Stratigraphic Phase: LXXXI Weight: 14.01g
Dimensions: 4.1cm long and 1cm wide.
Comments: Needle? Has an eye, incomplete, but too wide for textiles – perhaps for leather?
[Fig. 3.2]

3.2.10 Pins or styli

Pins or styli at ASW2 are found in period I to period C, D & E. While three of the examples are from robber pitting deposits, sf 2838 was found in the foundations of the pillared hall, sf 6344 in old land surface 390, sf 8114 in old land surface 492 and sf 16773 in old land surface 977. These are all examples of a tool type manufactured from a small iron rod. Some may actually represent fragmentary styli.

Special find no: 2201 Context: 320ne
Stratigraphic Phase: XCV Weight: 2.49g
Dimensions: 3 x 0.41cm
Comments: Pin or bar?

Special find no: 6112 Context: 326nw
Stratigraphic Phase: XCV Weight: 13.88g
Dimensions: 4 x 0.4cm
Comments: Pin or bar?

Special find no: 2713 Context: 35nw
Stratigraphic Phase: XCV Weight: 2.82g
Dimensions: 3 x 0.43cm
Comments: Pin or bar?

Special find no: 2838 Context: 358se
Stratigraphic Phase: XCIII Weight: 14.72g
Dimensions: 5 x 0.45cm
Comments: Pin or bar?

Special find no: 6344 Context: 390se
Stratigraphic Phase: LXXXVI Weight: 0.44g
Dimensions: 2.1 x 0.44cm
Comments: Pin or bar?

Special find no: 8114 Context: 492
Stratigraphic Phase: LXXV Weight: 10.75g
Dimensions: 5.6 x 0.4cm
Comments: Pin? Complete but broken. Too long and thin for a nail.

Special find no: 16773 Context: 977ne
Stratigraphic Phase: XXVIII Weight: 1.02g
Dimensions: 3.18 x 0.54cm
Comments: Pin with plating.

3.2.11 Bracelets

Only two iron bracelets were recovered from the sequence and both were found in period G. Sf 6864 was found in old land surface 487 and sf 7136 in old land surface 470. The two bracelets from ASW2 are perhaps better described as gently rounded bars and fall into Leshnik's Category VII Type E1b class, with parallels at Taxila and in the 'megalithic' complex of peninsular India (Leshnik 1974: 188). Dates of between the second and third centuries BC have been tentatively suggested (ibid.).

Special find no: 6864 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 37.48g
Dimensions: Radius 6cm, 13% survives (6cm of circumference). Bar is 1.1cm thick.
Comments: Bracelet? Bar gently rounded on purpose.

Special find no: 7136 Context: 490sw
Stratigraphic Phase: LXXV Weight: 50.76g
Dimensions: 4.1cm long and 1cm wide.
Comments: Bracelet? Four pieces, only 3/4 survives. Radius 3cm, 6.4cm outer diameter, 5.1cm inner diameter. The bar is 0.6cm thick.
[Fig. 3.2]

3.2.12 Tweezers

A single example was found in period G's old land surface 977. It is also an example of a tool manufactured from small iron rods. A pair of tweezers (no. 133) was also found at Sirkap, Taxila, in Stratum II and Marshall suggested that it had clear Graeco-Roman parallels (Marshall 1951: 554–5).

Special find no: 17203 Context: 977
Stratigraphic Phase: XXVIII Weight: 5g
Comments: Two parallel shafts. Tweezers?

3.2.13 Collars

Iron collars represent the second heaviest category of iron objects from ASW2 after bars. The greatest concentration is 40 in period G, while a further 3 were found in the last phase of period I and in period H. Within phase G2, 29 were found concentrated in the foundations of the southeastern range of structures and a further 2 in pit fill 607. The interpretation of this category of objects is difficult as they appear to be almost unique. They all consist of a single plate of iron which has been rounded to form a complete collar. From the presence of organic, probably wooden, pseudomorphs inside a number of the collars, their placing within the structure's foundations, it may be assumed that they enclosed a structural member.

Special find no: 6450 Context: 416ne
Stratigraphic Phase: XCI Weight: 34.29g
Dimensions: Height 2.2cm, diameter 2.7cm.
Comments: Complete.

Special find no: 6471 Context: 416
Stratigraphic Phase: XCI Weight: 42.86g
Dimensions: Height 2cm, diameter 5cm.
Comments: Incomplete: half survives.

Special find no: 6690 Context: 416ne
Stratigraphic Phase: XCI Weight: 409.08g
Dimensions: Height 2.8cm, diameter 12cm.
Comments: Complete. Bar is E in cross-section and probably points outside.
[Fig. 3.2]

Special find no: 6718 Context: 416ne
Stratigraphic Phase: XCI Weight: 52.93g
Dimensions: Height 3.8cm, diameter uncertain.
Comments: Incomplete, half survives squashed.

Special find no: 6992 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 114.76g
Dimensions: Height 2.2cm, diameter 5cm.
Comments: Incomplete, nine tenths survive.

Special find no: 10201 Context: 503aw
Stratigraphic Phase: LXXVI Weight: 199.80g
Dimensions: Height 3cm, diameter 5cm.
Comments: Complete.

Special find no: 7225 Context: 505aw
Stratigraphic Phase: LXXVI Weight: 31.64
Dimensions: Height distorted, diameter 2cm.
Comments: Incomplete third survives.

Special find no: 7065 Context: 494ne
Stratigraphic Phase: LXXV Weight: 313.01g
Dimensions: 9.5 x 6.3 x 2.5cm.
Comments: Oval, broken but complete.

Special find no: 7170 Context: 494ne
Stratigraphic Phase: LXXV Weight: 129.25g

Dimensions: Height 3cm, diameter 4cm.
Comments: Complete.
[Fig. 3.2]

Special find no: 10013 Context: 601se
Stratigraphic Phase: LXXII Weight: 120.35g
Dimensions: Height 2.5cm, diameter 4.5cm.
Comments: Incomplete, four pieces do not join. Wood pseudomorphs inside the major pieces.

Special find no: 10047 Context: 601se
Stratigraphic Phase: LXXII Weight: 41.75g
Dimensions: Height 1.5cm, diameter 5cm.
Comments: Incomplete, two pieces, half and a quarter, but do not join.

Special find no: 15035 Context: 601se
Stratigraphic Phase: LXXII Weight: 1.68g
Dimensions: 1.8 x 1cm., curved radius 1cm
Comments: Possible fragment.

Special find no: 10211 Context: 659se
Stratigraphic Phase: LXXII Weight: 42.45g
Dimensions: Height 1.7cm, diameter 4cm.
Comments: Complete.

Special find no: 16002 Context: 659se
Stratigraphic Phase: LXXII Weight: 70.3g
Dimensions: Height 4cm, diameter 3.2cm.
Comments: Complete, wood pseudomorph inside.

Special find no: 16003 Context: 659se
Stratigraphic Phase: LXXII Weight: 5.76g
Dimensions: Height 1.5cm, diameter was about 3cm.
Comments: Incomplete, quarter survives.

Special find no: 15052 Context: 606se
Stratigraphic Phase: LXX Weight: 26.51g
Dimensions: Height 4.5cm, diameter 2cm.
Comments: Incomplete third – joins sfs 15866 and 15040.

Special find no: 15866 Context: 606se
Stratigraphic Phase: LXX Weight: 19.33g
Dimensions: Height 4.5cm, diameter 2cm.
Comments: Incomplete third – joins sfs 15052 and 15040.

Special find no: 15040 Context: 606se
Stratigraphic Phase: LXX Weight: 26.19g
Dimensions: Height 4.5cm, diameter 2cm.
Comments: Incomplete third – joins sfs 15052 and 15866.

Special find no: 15051 Context: 606se
Stratigraphic Phase: LXX Weight: 86.31g
Dimensions: Height 3cm, diameter 4cm.
Comments: Incomplete two thirds.

Special find no: 15062 Context: 607
Stratigraphic Phase: LXX Weight: 18.39g
Dimensions: Height 2.3cm, diameter 6cm.
Comments: Incomplete, one quarter.

Special find no: 15977 Context: 607
Stratigraphic Phase: LXX Weight: 30.97g
Dimensions: Height 4.5cm, diameter 4cm.
Comments: Incomplete fragment, a quarter.

Special find no: 10079 Context: 616se
Stratigraphic Phase: LXX Weight: 148.15g
Dimensions: Height 3.2cm, diameter 4.5–5.5cm.
Comments: Complete.

Special find no: 10083 Context: 616se
Stratigraphic Phase: LXX Weight: 199.55g
Dimensions: Height 1–2cm, diameter 5–10cm.
Comments: Complete oval shaped, four pieces.

Special find no: 10087 Context: 616se
Stratigraphic Phase: LXX Weight: 157.59g

Dimensions: Height 3cm, diameter 5.5cm.
Comments: Incomplete, six pieces, two thirds.

Special find no: 10092 Context: 616se
Stratigraphic Phase: LXX Weight: 43.97g
Dimensions: Height 2.2cm, diameter 5.5cm.
Comments: Incomplete, half survives – joins sf 10121.

Special find no: 10102 Context: 616se
Stratigraphic Phase: LXX Weight: 139.19g
Dimensions: Height 3cm, diameter 5.2cm.
Comments: Incomplete.

Special find no: 10103 Context: 616se
Stratigraphic Phase: LXX Weight: 75.51g
Dimensions: Height 1.8cm, diameter 5.5cm.
Comments: Four pieces, all with fresh breaks. None joins.

Special find no: 10111 Context: 616se
Stratigraphic Phase: LXX Weight: 65.65g
Dimensions: Height 2.3cm, diameter 5.5cm.
Comments: Incomplete, half survives.

Special find no: 10116 Context: 616se
Stratigraphic Phase: LXX Weight: 138.61g
Dimensions: Height 6.8cm, diameter 3.5cm.
Comments: Complete circumference, piece missing. Excellent wood pseudomorph.

Special find no: 10120 Context: 616se
Stratigraphic Phase: LXX Weight: 172.1g
Dimensions: 9 x 6.5 x 2cm.
Comments: Complete oval corroded together with bar. Bar has circular cross-section.
[Plate 3.2]

Special find no: 10121 Context: 616se
Stratigraphic Phase: LXX Weight: 48.2g
Dimensions: Height 2.2cm, diameter 5.5cm.
Comments: Incomplete, half survives, joins sf 10092.

Special find no: 10122 Context: 616se
Stratigraphic Phase: LXX Weight: 160.4g
Dimensions: Height 2.2cm, diameter 5.5cm.
Comments: Complete.

Special find no: 10131 Context: 616se
Stratigraphic Phase: LXX Weight: 90.87g
Dimensions: Height 2.2cm, diameter 4.5cm.
Comments: Complete.

Special find no: 10132 Context: 616se
Stratigraphic Phase: LXX Weight: 173.02g
Dimensions: Height 3cm, diameter 5cm.
Comments: Complete.

Special find no: 15060 Context: 616se
Stratigraphic Phase: LXX Weight: 50.03g
Dimensions: Height 3cm, diameter 7cm.
Comments: Incomplete, quarter survives – joins sf 15072.

Special find no: 15072 Context: 616se
Stratigraphic Phase: LXX Weight: 101.53g
Dimensions: Height 3.2cm, diameter 7cm.
Comments: Incomplete, two pieces – joins sf 15060.

Special find no: 15076 Context: 616se
Stratigraphic Phase: LXX Weight: 127.87g
Dimensions: Height 3.2cm, diameter 5.5cm.
Comments: Complete.

Special find no: 15077 Context: 616se
Stratigraphic Phase: LXX Weight: 103.87g
Dimensions: Height 2.8cm, diameter 5.2cm.
Comments: Complete in two pieces. With wood pseudo inside.

Special find no: 15080 Context: 616se
Stratigraphic Phase: LXX Weight: 25.39g

Dimensions: Height 2.5cm, diameter about 20cm.
Comments: Incomplete fraction survives. Is much larger than the others.

Special find no: 15082 Context: 616se
Stratigraphic Phase: LXX Weight: 9.75g
Dimensions: Height 2.2cm, diameter around 6cm.
Comments: Incomplete fraction survives.

Special find no: 10177 Context: 670sw
Stratigraphic Phase: LXIV Weight: 216.59g
Dimensions: Height 3.5cm, diameter 6cm.
Comments: Five pieces join to make a complete ring.

Special find no: 16013 Context: 714sw
Stratigraphic Phase: LIV Weight: 30.57g
Dimensions: Height 2.2cm, diameter 5cm.
Comments: Incomplete, less than half survives.

Special find no: 16034 Context: 714sw
Stratigraphic Phase: LIV Weight: 41.13g
Dimensions: Height 1.8cm, diameter about 7cm.
Comments: Incomplete and bent.

3.2.14 Pipe

A single iron pipe was recovered from period G's old land surface 487. The pipe was formed by folding the sheet into a tube. Such an object may be a structural element or it may represent a metal shaft for a composite tool. It would be quite possible, for example, to attach the plug at the base of the 100cm long Type 1 spearhead from Sanur (Banerjee and Rajan 1959) into the pipe.

Special find no: 6904 Context: 487me
Stratigraphic Phase: LXXXI Weight: 1260g
Dimensions: 40cm long and 3cm diameter. Collar is 3.5cm wide, all sheets are 0.2cm thick.
Comments: Pipe sheet folded into a tube, slight overlap to make the weld. Collar at one end to join pipes or seal it as the end appears to be blocked.
[Fig. 3.3]

3.2.15 Staple

A single staple, formed by bending a bar into a 'Q' shape, was recovered from robber pit fill 324.

Special find no: 2225 Context: 324ne
Stratigraphic Phase: XCV Weight: 37.45g
Dimensions: 5.5 x 2.5cm bar, maximum 0.7cm.
Comments: Bar bent to make a Q-type object, tapers to a point. Possible closed hook or a staple.
[Fig. 3.2]

3.2.16 Bars

Bars represent the single largest weight of all the iron artefact categories. Some of the artefacts listed below may well have been part of composite objects or small tools manufactured from bars, however their current state makes their function impossible to assess.

Special find no: 388 Context: 5
Stratigraphic Phase: CXII Weight: 33.42g

Special find no: 50 Context: 19sw
Stratigraphic Phase: CX Weight: 12.98g

Special find no: 833 Context: 9ne
Stratigraphic Phase: CVI Weight: 7.3g

Special find no: 841 Context: 9sw
Stratigraphic Phase: CVI Weight: 7.25g

Metal Objects

Special find no: 82 Stratigraphic Phase: C	Context: 24nw Weight: 6.85g	Special find no: 5935 Stratigraphic Phase: XCII	Context: 364 Weight: 4.94g
Special find no: 95 Stratigraphic Phase: C	Context: 27se Weight: 10.04g	Special find no: 6083 Stratigraphic Phase: XCII	Context: 364ne Weight: 50.87g
Special find no: 664 Stratigraphic Phase: XCIX	Context: 187 Weight: 26.39g	Special find no: 2892 Stratigraphic Phase: XCII	Context: 364ne Weight: 33.27g
Special find no: 129 Stratigraphic Phase: XCVIII	Context: 48ne Weight: 6.45g	Special find no: 5072 Stratigraphic Phase: XCII	Context: 364nw Weight: 10.13g
Special find no: 918 Stratigraphic Phase: XCVII	Context: 25nw Weight: 19.56g	Special find no: 2974 Stratigraphic Phase: XCII	Context: 365nw Weight: 59.31g
Special find no: 265 Stratigraphic Phase: XCV	Context: 88ne Weight: 15.99g	Special find no: 2920 Stratigraphic Phase: XCII	Context: 367sw Weight: 26.57g
Special find no: 836 Stratigraphic Phase: XCV	Context: 88nw Weight: 30.27g	Special find no: 2987 Stratigraphic Phase: XCII	Context: 367nw Weight: 28.83g
Special find no: 322 Stratigraphic Phase: XCV	Context: 126se Weight: 15.85g	Special find no: 6265 Stratigraphic Phase: XCI	Context: 385se Weight: 28.77g
Special find no: 1451 Stratigraphic Phase: XCV	Context: 134 Weight: 23.56g	Special find no: 5957 Stratigraphic Phase: XCI	Context: 386 Weight: 30.06g
Special find no: 915 Stratigraphic Phase: XCV	Context: 158 Weight: 10.97g	Special find no: 6270 Stratigraphic Phase: XCI	Context: 386nw Weight: 48.96g
Special find no: 1471 Stratigraphic Phase: XCV	Context: 158nw Weight: 24.32g	Special find no: 5322 Stratigraphic Phase: XCI	Context: 399se Weight: 23.64
Special find no: 1836 Stratigraphic Phase: XCV	Context: 316ne Weight: 14.32g	Special find no: 6331 Stratigraphic Phase: XCI	Context: 399se Weight: 44.63g
Special find no: 2224 Stratigraphic Phase: XCV	Context: 324ne Weight: 5.08g	Special find no: 5441 Stratigraphic Phase: XCI	Context: 400se Weight: 29.78g
Special find no: 2664 Stratigraphic Phase: XCV	Context: 359nw Weight: 78.84g	Special find no: 6613 Stratigraphic Phase: XCI	Context: 406sw Weight: 29.32g
Special find no: 2826 Stratigraphic Phase: XCV	Context: 373 Weight: 14.09g	Special find no: 5448 Stratigraphic Phase: XCI	Context: 414 Weight: 25.5g
Special find no: 1449 Stratigraphic Phase: XCIII	Context: 200sw Weight: 19.76g	Special find no: 5449 Stratigraphic Phase: XCI	Context: 414 Weight: 23.14g
Special find no: 1450 Stratigraphic Phase: XCIII	Context: 200sw Weight: 21.65g	Special find no: 6454 Stratigraphic Phase: XCI	Context: 416ne Weight: 14.57g
Special find no: 1703 Stratigraphic Phase: XCIII	Context: 304ne Weight: 26.21g	Special find no: 6589 Stratigraphic Phase: XCI	Context: 416ne Weight: 33.15g
Special find no: 8036 Stratigraphic Phase: XCIII	Context: 305sw Weight: 42.12g	Special find no: 6711 Stratigraphic Phase: XCI	Context: 416ne Weight: 86.61g
Special find no: 5451 Stratigraphic Phase: XCIII	Context: 306sw Weight: 4.77g	Special find no: 8258 Stratigraphic Phase: XCI	Context: 416 Weight: 53.51g
Special find no: 2127 Stratigraphic Phase: XCIII	Context: 307 Weight: 16.57g	Special find no: 5347 Stratigraphic Phase: XCI	Context: 424nw Weight: 17.59g
Special find no: 5184 Stratigraphic Phase: XCIII	Context: 345sw Weight: 8.37g	Special find no: 8260 Stratigraphic Phase: XCI	Context: 425 Weight: 43.88g
Special find no: 6081 Stratigraphic Phase: XCIII	Context: 345sw Weight: 48.84g	Special find no: 5435 Stratigraphic Phase: XCI	Context: 427sw Weight: 31.37g
Special find no: 5944 Stratigraphic Phase: XCIII	Context: 358 Weight: 9.56g	Special find no: 6673 Stratigraphic Phase: XCI	Context: 427sw Weight: 27.2g
Special find no: 2854 Stratigraphic Phase: XCIII	Context: 374nw Weight: 33.42g	Special find no: 6688 Stratigraphic Phase: XCI	Context: 427sw Weight: 8.34g
Special find no: 5307 Stratigraphic Phase: XCIII	Context: 388nw Weight: 53.34g	Special find no: 5970 Stratigraphic Phase: XCI	Context: 431 Weight: 26.75g

Special find no: 6640	Context: 431sw	Special find no: 6882	Context: 470sw
Stratigraphic Phase: XCI	Weight: 28.51g	Stratigraphic Phase: LXXXI	Weight: 14.01g
Special find no: 6170	Context: 381ne	Special find no: 6974	Context: 470sw
Stratigraphic Phase: LXXXIX	Weight: 33.61g	Stratigraphic Phase: LXXXI	Weight: 7.49g
Special find no: 5336	Context: 409nw	Special find no: 6839	Context: 487ne
Stratigraphic Phase: LXXXVIII	Weight: 58g	Stratigraphic Phase: LXXXI	Weight: 19.67g
Special find no: 5337	Context: 409nw	Special find no: 6858	Context: 487ne
Stratigraphic Phase: LXXXVIII	Weight: 103.55g	Stratigraphic Phase: LXXXI	Weight: 41.69g
Special find no: 5338	Context: 409nw	Special find no: 6866	Context: 487ne
Stratigraphic Phase: LXXXVIII	Weight: 57.14g	Stratigraphic Phase: LXXXI	Weight: 33.63g
Special find no: 5339	Context: 409nw	Special find no: 6985	Context: 487ne
Stratigraphic Phase: LXXXVIII	Weight: 59.64g	Stratigraphic Phase: LXXXI	Weight: 45.34g
Special find no: 5947	Context: 409ne	Special find no: 10184	Context: 503nw
Stratigraphic Phase: LXXXVIII	Weight: 9.6g	Stratigraphic Phase: LXXVI	Weight: 96.65g
Special find no: 5965	Context: 409nw	Special find no: 7238	Context: 504sw
Stratigraphic Phase: LXXXVIII	Weight: 63.08g	Stratigraphic Phase: LXXV	Weight: 87.53g
Special find no: 6367	Context: 409ne	Special find no: 7146	Context: 490sw
Stratigraphic Phase: LXXXVIII	Weight: 57.47g	Stratigraphic Phase: LXXV	Weight: 58.17g
Special find no: 6421	Context: 409nw	Special find no: 7217	Context: 492se
Stratigraphic Phase: LXXXVIII	Weight: 71.82g	Stratigraphic Phase: LXXV	Weight: 103.38g
Special find no: 6422	Context: 409nw	Special find no: 7233	Context: 492se
Stratigraphic Phase: LXXXVIII	Weight: 36.97g	Stratigraphic Phase: LXXV	Weight: 80.05g
Special find no: 6543	Context: 409nw	Special find no: 8119	Context: 492sw
Stratigraphic Phase: LXXXVIII	Weight: 302.59g	Stratigraphic Phase: LXXV	Weight: 12.11g
Special find no: 6549	Context: 409ne	Special find no: 7032	Context: 494ne
Stratigraphic Phase: LXXXVIII	Weight: 66.14g	Stratigraphic Phase: LXXV	Weight: 227.26g
Special find no: 6567	Context: 419ne	Special find no: 7035	Context: 494ne
Stratigraphic Phase: LXXXVIII	Weight: 8.44g	Stratigraphic Phase: LXXV	Weight: 4.3g
Special find no: 6646	Context: 426ne	Special find no: 7084	Context: 494se
Stratigraphic Phase: LXXXVIII	Weight: 45.89g	Stratigraphic Phase: LXXV	Weight: 20.3g
Special find no: 6577	Context: 339ne	Special find no: 7092	Context: 494ne
Stratigraphic Phase: LXXXVII	Weight: 31.39g	Stratigraphic Phase: LXXV	Weight: 25.02g
Special find no: 6756	Context: 437ne	Special find no: 7156	Context: 494ne
Stratigraphic Phase: LXXXVII	Weight: 15.86g	Stratigraphic Phase: LXXV	Weight: 22.3g
Special find no: 6724	Context: 441ne	Special find no: 7184	Context: 494ne
Stratigraphic Phase: LXXXVII	Weight: 53.67g	Stratigraphic Phase: LXXV	Weight: 13.89g
Special find no: 6775	Context: 442se	Special find no: 7185	Context: 494ne
Stratigraphic Phase: LXXXVII	Weight: 36.26g	Stratigraphic Phase: LXXV	Weight: 69.68g
Special find no: 6761	Context: 449sw	Special find no: 15639	Context: 635
Stratigraphic Phase: LXXXVII	Weight: 12.42g	Stratigraphic Phase: LXXXIII	Weight: 33.66g
Special find no: 5281	Context: 376nw	Special find no: 15034	Context: 601sw
Stratigraphic Phase: LXXXVI	Weight: 23.7g	Stratigraphic Phase: LXXXII	Weight: 16.01g
Special find no: 6340	Context: 390se	Special find no: 15071	Context: 601
Stratigraphic Phase: LXXXVI	Weight: 8.7g	Stratigraphic Phase: LXXXII	Weight: 122.73g
Special find no: 6902	Context: 467nw	Special find no: 15972	Context: 601se
Stratigraphic Phase: LXXXI	Weight: 0.27g	Stratigraphic Phase: LXXXII	Weight: 2.23g
Special find no: 6846	Context: 470sw	Special find no: 15069	Context: 602
Stratigraphic Phase: LXXXI	Weight: 45.07g	Stratigraphic Phase: LXXXII	Weight: 48.68g
Special find no: 6863	Context: 487ne	Special find no: 16005	Context: 659ne
Stratigraphic Phase: LXXXI	Weight: 59.48g	Stratigraphic Phase: LXXXII	Weight: 35.87g
Special find no: 6874	Context: 470sw	Special find no: 10050	Context: 607se
Stratigraphic Phase: LXXXI	Weight: 25.42g	Stratigraphic Phase: LXXXI	Weight: 35.58g

Metal Objects

Special find no: 10066 Stratigraphic Phase: LXXI	Context: 607se Weight: 74.34g	Special find no: 16567 Stratigraphic Phase: XXXVI	Context: 897ne Weight: 9.44g
Special find no: 15865 Stratigraphic Phase: LXX	Context: 606se Weight: 5.08g	Special find no: 10330 Stratigraphic Phase: XXXV	Context: 837sw Weight: 51.02g
Special find no: 10098 Stratigraphic Phase: LXX	Context: 616se Weight: 108.25g	Special find no: 16802 Stratigraphic Phase: XXXII	Context: 964 Weight: 24.23g
Special find no: 10104 Stratigraphic Phase: LXX	Context: 616se Weight: 184.39g	Special find no: 17322 Stratigraphic Phase: XXXI	Context: 1098se Weight: 57.86g
Special find no: 10117 Stratigraphic Phase: LXX	Context: 616se Weight: 50.70g	Special find no: 10435 Stratigraphic Phase: XXX Comments: Triangular bar.	Context: 961sw Weight: 31.6g
Special find no: 10130 Stratigraphic Phase: LXX	Context: 616se Weight: 349.42g	Special find no: 16760 Stratigraphic Phase: XXX	Context: 961se Weight: 25.4g
Special find no: 10134 Stratigraphic Phase: LXX	Context: 616se Weight: 100.69g	Special find no: 17563 Stratigraphic Phase: XXIX	Context: 1119sw Weight: 96.89g
Special find no: 10079 Stratigraphic Phase: LXX	Context: 616se Weight: 148.15g	Special find no: 10556 Stratigraphic Phase: XXVIII	Context: 977 Weight: 5g
Special find no: 15876 Stratigraphic Phase: LXX	Context: 616se Weight: 15.62g	Special find no: 16804 Stratigraphic Phase: XXVIII	Context: 977 Weight: 5g
Special find no: 10120 Stratigraphic Phase: LXX	Context: 616se Weight: 43.2g	Special find no: 16805 Stratigraphic Phase: XXVIII	Context: 977 Weight: 5g
Special find no: 10213 Stratigraphic Phase: LXIV	Context: 670se Weight: 90.74g	Special find no: 16816 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 13.46g
Special find no: 15966 Stratigraphic Phase: LXIV	Context: 670 Weight: 174.55g	Special find no: 16820 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 56.2g
Special find no: 15974 Stratigraphic Phase: LXIV	Context: 670sw Weight: 303.34g	Special find no: 17041 Stratigraphic Phase: XXVIII	Context: 977se Weight: 4.58g
Special find no: 16161 Stratigraphic Phase: LXIV	Context: 698nw Weight: 15.67g	Special find no: 17043 Stratigraphic Phase: XXVIII	Context: 977se Weight: 26.49g
Special find no: 16165 Stratigraphic Phase: LXIV	Context: 698nw Weight: 14.25g	Special find no: 17077 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 9.71g
Special find no: 16353 Stratigraphic Phase: LX	Context: 767ne Weight: 20.32g	Special find no: 17175 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 34.69g
Special find no: 16354 Stratigraphic Phase: LX	Context: 767ne Weight: 15.86g	Special find no: 17205 Stratigraphic Phase: XXVIII	Context: 977 Weight: 4.21g
Special find no: 15996 Stratigraphic Phase: LVII	Context: 750se Weight: 15.96g	Special find no: 17219 Stratigraphic Phase: XXVIII	Context: 977 Weight: 6.42g
Special find no: 15871 Stratigraphic Phase: LIV	Context: 714se Weight: 59.76g	Special find no: 17279 Stratigraphic Phase: XXVIII	Context: 977sw Weight: 10.84g
Special find no: 16016 Stratigraphic Phase: LIV	Context: 714sw Weight: 45.86g	Special find no: 17365 Stratigraphic Phase: XXVIII Comments: Shaped bar with two diagonal bars.	Context: 977se Weight: 213.63g
Special find no: 16018 Stratigraphic Phase: LIV	Context: 714sw Weight: 56.99g	Special find no: 10537 Stratigraphic Phase: XXVIII Comments: Triangular bar.	Context: 977 Weight: 6.52g
Special find no: 16035 Stratigraphic Phase: LIV	Context: 714sw Weight: 88.73g	Special find no: 17366 Stratigraphic Phase: XXV	Context: 1124 Weight: 1.02g
Special find no: 16036 Stratigraphic Phase: LIV	Context: 714sw Weight: 106.2g	Special find no: 17216 Stratigraphic Phase: XXIII Comments: Irregular bar.	Context: 1125 Weight: 2.42g
Special find no: 16339 Stratigraphic Phase: LIV	Context: 714sw Weight: 7.57g	Special find no: 17404 Stratigraphic Phase: XVII	Context: 1403sw Weight: 20.47g
Special find no: 16543 Stratigraphic Phase: XL	Context: 850ne Weight: 1.76g		
Special find no: 10305 Stratigraphic Phase: XXXIX	Context: 831ne Weight: 307.43g		

Special find no: 17532 Context: 1407ne
Stratigraphic Phase: XIV Weight: 7.64g
Comments: with edge.

Special find no: 17611 Context: 1544nw
Stratigraphic Phase: XIII Weight: 0.45g

Special find no: 17612 Context: 1544nw
Stratigraphic Phase: XIII Weight: 1.22g

3.2.17 Sheet fittings

Fifty-eight fragments of sheet fittings were found at ASW2 in periods B to I. Some of these may well have been part of composite objects or small tools manufactured from sheets, however their current state makes their function impossible to assess. It is likely that a number were attached to organic material at the time of deposition.

Special find no: 944 Context: 25nw
Stratigraphic Phase: XCVII Weight: 29.29g
Comments: Bent with no good edges.

Special find no: 945 Context: 88ne
Stratigraphic Phase: XCV Weight: 24.17g
Comments: Rectangular with circular hole at one end.

Special find no: 943 Context: 134se
Stratigraphic Phase: XCV Weight: 6.07g
Comments: Two possible edges.

Special find no: 826 Context: 182
Stratigraphic Phase: XCV Weight: 15.65g
Comments: Square with four straight-sided edges.

Special find no: 2689 Context: 294ne
Stratigraphic Phase: XCV Weight: 7.21g
Comments: Rectangle. Square removed from corner.

Special find no: 6586 Context: 347ne
Stratigraphic Phase: XCV Weight: 21.78g
Comments: One good edge. Two holes? Edges straight but not sharp.

Special find no: 5951 Context: 369se
Stratigraphic Phase: XCIII Weight: 30.4g
Comments: Rectangle with 4 holes, 2 in the middle at either end and the other 2 are near one of these either side towards the corner.

Special find no: 2715 Context: 365nw
Stratigraphic Phase: XCII Weight: 54.32g
Comments: Sheet fragment, 2 or 3 original edges.

Special find no: 5312 Context: 386nw
Stratigraphic Phase: XCI Weight: 15.32g
Comments: Triangular piece, one original edge.

Special find no: 5433 Context: 406sw
Stratigraphic Phase: XCI Weight: 6.05g
Comments: Rough circular piece with hole in the middle.

Special find no: 6513 Context: 417nw
Stratigraphic Phase: XCI Weight: 14.27g
Comments: Sheet with rivet hole.

Special find no: 5431 Context: 422sw
Stratigraphic Phase: XCI Weight: 6.68g
Comments: Fragment with no original edges.

Special find no: 5335 Context: 409nw
Stratigraphic Phase: LXXXVIII Weight: 19.75g
Comments: Two sheets? Original sides, folded in one corner.

Special find no: 16334 Context: 450nw
Stratigraphic Phase: LXXXVII Weight: 29.53g

Comments: Two parallel straight original edges, one end has nail hole clipping edge.

Special find no: 6793 Context: 458sw
Stratigraphic Phase: LXXXVII Weight: 75.99g
Comments: Square?

Special find no: 6721 Context: 390se
Stratigraphic Phase: LXXXVI Weight: 19.69g
Comments: Two original edges.

Special find no: 15942 Context: 605ne
Stratigraphic Phase: LXXXIII Weight: 6.03g
Comments: Fragment with one straight edge. Nail hole clips another edge.

Special find no: 8265 Context: 467
Stratigraphic Phase: LXXXI Weight: 4.82g
Comments: Two sheet fragments with no original sides.

Special find no: 6996 Context: 469se
Stratigraphic Phase: LXXXI Weight: 22.53g
Comments: Four pieces, three of them have two original edges, one of these has a hole at one end.

Special find no: 6847 Context: 470sw
Stratigraphic Phase: LXXXI Weight: 16.52g
Comments: Two fragments.

Special find no: 8482 Context: 470sw
Stratigraphic Phase: LXXXI Weight: 4.48g
Comments: Fragment.

Special find no: 6881 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 3.73g
Comments: Square sheet with rough edges. Circular hole off-centre.

Special find no: 7075 Context: 495se
Stratigraphic Phase: LXXX Weight: 42.78g
Comments: Rectangle. Original rivet hole clips short edge.

Special find no: 10189 Context: 503ne
Stratigraphic Phase: LXXVI Weight: 222.45g
Comments: Three sheets, each has two straight parallel lines.

Special find no: 7149 Context: 492se
Stratigraphic Phase: LXXV Weight: 22.69g
Comments: Two pieces, original edges, circular hole in centre.

Special find no: 8450 Context: 492se
Stratigraphic Phase: LXXV Weight: 17.24g
Comments: Two pieces.

Special find no: 7189 Context: 493se
Stratigraphic Phase: LXXV Weight: 27.7g
Comments: Two pieces with rough edges.

Special find no: 8462 Context: 493se
Stratigraphic Phase: LXXV Weight: 4.71g

Special find no: 7043 Context: 494ne
Stratigraphic Phase: LXXV Weight: 3.35g

Special find no: 7072 Context: 494se
Stratigraphic Phase: LXXV Weight: 4.59g

Special find no: 15979 Context: 604ne
Stratigraphic Phase: LXXV Weight: 2.39g

Special find no: 15641 Context: 635
Stratigraphic Phase: LXXXIII Weight: 1.45g

Special find no: 10004 Context: 601
Stratigraphic Phase: LXXII Weight: 605.19g
Comments: Very large (12 x 12 cm), no original edges.

Metal Objects

Special find no: 15058 Context: 601
Stratigraphic Phase: LXXII Weight: 18.74g
Comments: Two fragments.

Special find no: 15059 Context: 601
Stratigraphic Phase: LXXII Weight: 41.67g
Comments: Very large, no original edges.

Special find no: 16160 Context: 601
Stratigraphic Phase: LXXII Weight: 122.1g

Special find no: 15938 Context: 659
Stratigraphic Phase: LXXII Weight: 9.7g

Special find no: 16000 Context: 659se
Stratigraphic Phase: LXXII Weight: 24.25g

Special find no: 15053 Context: 606se
Stratigraphic Phase: LXX Weight: 6.86g

Special find no: 15084 Context: 616se
Stratigraphic Phase: LXX Weight: 3.8g

Special find no: 15873 Context: 616se
Stratigraphic Phase: LXX Weight: 2.94g
Comments: Three corroded sheets.

Special find no: 10133 Context: 616se
Stratigraphic Phase: LXX Weight: 25.46g

Special find no: 15874 Context: 616se
Stratigraphic Phase: LXX Weight: 5.43g
Comments: Square sheet, circular hole in middle, another hole at edge, edges are fairly straight.

Special find no: 15933 Context: 670nw
Stratigraphic Phase: LXIV Weight: 27.04g

Special find no: 15981 Context: 698nw
Stratigraphic Phase: LXIV Weight: 27.62g

Special find no: 16342 Context: 698ne
Stratigraphic Phase: LXIV Weight: 8.67g

Special find no: 16030 Context: 715se
Stratigraphic Phase: LXII Weight: 24.7g
Comments: Triangular sheet.

Special find no: 16032 Context: 715
Stratigraphic Phase: LXII Weight: 2.11g

Special find no: 16014 Context: 714
Stratigraphic Phase: LIV Weight: 15.1g

Special find no: 16017 Context: 714sw
Stratigraphic Phase: LIV Weight: 37.83g

Special find no: 15869 Context: 714se
Stratigraphic Phase: LIV Weight: 14.56g

Special find no: 15993 Context: 729sw
Stratigraphic Phase: LIII Weight: 26.58g
Comments: Large tapering sheet.

Special find no: 10330 Context: 837sw
Stratigraphic Phase: XXXV Weight: 51.02g
Comments: Tapering sheet.

Special find no: 16799 Context: 1119
Stratigraphic Phase: XXIX Weight: 9.65g
Comments: Thin piece with two or three original edges.

Special find no: 16830 Context: 977se
Stratigraphic Phase: XXVIII Weight: 56.21g
Comments: Sheet with rivet hole.

Special find no: 17200 Context: 977
Stratigraphic Phase: XXVIII Weight: 14.23g
Comments: Sheet with rivet hole.

Special find no: 17201 Context: 977
Stratigraphic Phase: XXVIII Weight:
Comments: Sheet with rivet hole.

Special find no: 17326 Context: 977ne
Stratigraphic Phase: XXVIII Weight: 7.46g
Comments: Sheet with hole.

3.2.18 Tapering nails

Twenty-eight tapering nails were recovered from ASW2 periods B to I. They are concentrated in periods I and G. It is assumed that they performed a structural function.

Special find no: 67 Context: 24nw
Stratigraphic Phase: C Weight: 8.47g

Special find no: 5440 Context: 326
Stratigraphic Phase: XCV Weight: 34.61g

Special find no: 2540 Context: 347ne
Stratigraphic Phase: XCV Weight: 15.57g

Special find no: 5189 Context: 306se
Stratigraphic Phase: XCIII Weight: 26.56g

Special find no: 5427 Context: 425
Stratigraphic Phase: XCI Weight: 14.64g

Special find no: 5327 Context: 409sw
Stratigraphic Phase: LXXXVIII Weight: 42.27g

Special find no: 6789 Context: 437se
Stratigraphic Phase: LXXXVII Weight: 34.86g

Special find no: 6765 Context: 457sw
Stratigraphic Phase: LXXXVI Weight: 28.5g

Special find no: 6408 Context: 390se
Stratigraphic Phase: LXXXVI Weight: 15.47g

Special find no: 15057 Context: 601
Stratigraphic Phase: LXXII Weight: 51.26g

Special find no: 16012 Context: 659se
Stratigraphic Phase: LXXII Weight: 10.62g

Special find no: 10048 Context: 608sw
Stratigraphic Phase: LXXI Weight: 10.9g

Special find no: 10232 Context: 714sw
Stratigraphic Phase: LIV Weight: 57.47g

Special find no: 15992 Context: 729sw
Stratigraphic Phase: LIII Weight: 44.44g

Special find no: 16171 Context: 729
Stratigraphic Phase: LIII Weight: 24.54g

Special find no: 16350 Context: 791nw
Stratigraphic Phase: XLVII Weight: 32.29g

Special find no: 16564 Context: 850ne
Stratigraphic Phase: XL Weight: 29.47g

Special find no: 16553 Context: 880se
Stratigraphic Phase: XXXIII Weight: 61.34g

Special find no: 16556 Context: 880se
Stratigraphic Phase: XXXIII Weight: 40.67g

Special find no: 16678 Context: 880se
Stratigraphic Phase: XXXIII Weight: 28.21g

Special find no: 16560	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 34.66g
Special find no: 16561	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 33.45g
Special find no: 17553	Context: 894nw
Stratigraphic Phase: XXXII	Weight: 35.27g
Special find no: 10400	Context: 961nw
Stratigraphic Phase: XXX	Weight: 26.26g
Special find no: 10402	Context: 961nw
Stratigraphic Phase: XXX	Weight: 21.74g
Special find no: 10450	Context: 961se
Stratigraphic Phase: XXX	Weight: 28.58g
Special find no: 10551	Context: 977se
Stratigraphic Phase: XXVIII	Weight: 27.34g
Special find no: 17042	Context: 977se
Stratigraphic Phase: XXVIII	Weight: 13.25g

3.2.19 T-shaped nails

Thirty-three T-shaped nails were recovered from ASW2 period C, D & E to period J. They are concentrated in periods I and G. It is assumed that they performed a structural function.

Special find no: 835	Context: 88nw
Stratigraphic Phase: XCV	Weight: 41.13g
Special find no: 925	Context: 134sw
Stratigraphic Phase: XCV	Weight: 17.2g
Special find no: 2334	Context: 316ne
Stratigraphic Phase: XCV	Weight: 51.37g
Special find no: 5201	Context: 306se
Stratigraphic Phase: XCIII	Weight: 14.58g
Special find no: 5283	Context: 379
Stratigraphic Phase: XCIII	Weight: 17.42g
Special find no: 6060	Context: 365nw
Stratigraphic Phase: XCII	Weight: 26.37g
Special find no: 6559	Context: 424nw
Stratigraphic Phase: XCI	Weight: 104.89g
[Fig. 3.3]	
Special find no: 6345	Context: 385se
Stratigraphic Phase: XCI	Weight: 25.92g
Special find no: 5310	Context: 386nw
Stratigraphic Phase: XCI	Weight: 61.86g
Special find no: 6493	Context: 415se
Stratigraphic Phase: XCI	Weight: 17.41g
Special find no: 5429	Context: 416ne
Stratigraphic Phase: XCI	Weight: 16.45g
Special find no: 6498	Context: 417nw
Stratigraphic Phase: XCI	Weight: 5.28g
Special find no: 8255	Context: 446nw
Stratigraphic Phase: LXXXVII	Weight: 8.45g
Special find no: 8262	Context: 490sw
Stratigraphic Phase: LXXV	Weight: 23.93g
Special find no: 15967	Context: 663nw
Stratigraphic Phase: LXVI	Weight: 203.26g

Special find no: 16344	Context: 831se
Stratigraphic Phase: XXXIX	Weight: 49.63g
Special find no: 16569	Context: 837se
Stratigraphic Phase: XXXV	Weight: 49.56g
Special find no: 16549	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 27.77g
Special find no: 16552	Context: 880sw
Stratigraphic Phase: XXXIII	Weight: 65.12g
Special find no: 16554	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 67.89g
Special find no: 16555	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 34.26g
Special find no: 16559	Context: 880se
Stratigraphic Phase: XXXIII	Weight: 65.35g
Special find no: 17058	Context: 964sw
Stratigraphic Phase: XXXII	Weight: 95.42g
Special find no: 16772	Context: 970
Stratigraphic Phase: XXXI	Weight: 32.35g
Special find no: 10405	Context: 961nw
Stratigraphic Phase: XXX	Weight: 26.11g
Special find no: 10420	Context: 961sw
Stratigraphic Phase: XXX	Weight: 84.78g
Special find no: 10424	Context: 961se
Stratigraphic Phase: XXX	Weight: 44.33g
Special find no: 10443	Context: 961se
Stratigraphic Phase: XXX	Weight: 42.44g
Special find no: 16680	Context: 961ne
Stratigraphic Phase: XXX	Weight: 22.25g
Special find no: 10496	Context: 977ne
Stratigraphic Phase: XXVIII	Weight: 17.72g
Special find no: 17044	Context: 977se
Stratigraphic Phase: XXVIII	Weight: 17.65g
Special find no: 17079	Context: 977ne
Stratigraphic Phase: XXVIII	Weight: 19.69g
Special find no: 17399	Context: 1172se
Stratigraphic Phase: XXII	Weight: 12.37g

3.2.20 Large-headed nails

Five large-headed nails were recovered from ASW2 periods C, D & E to I. It is assumed that they performed a structural function.

Special find no: 916	Context: 100ne
Stratigraphic Phase: XCV	Weight: 12.12g
Special find no: 6595	Context: 426ne
Stratigraphic Phase: LXXXVIII	Weight: 22.13g
Special find no: 25000	Context: 506sw
Stratigraphic Phase: LXXVI	Weight: 25.67g
Special find no: 16566	Context: 897ne
Stratigraphic Phase: XXXVI	Weight: 31.86g
Special find no: 10346	Context: 894nw
Stratigraphic Phase: XXXII	Weight: 107.83g

3.2.21 L-shaped nails

Fourteen L-shaped nails were recovered from ASW2 periods B to G. It is assumed that they too performed a structural function. Deraniyagala recovered similar nails from Strata 3A, 3B, 4A and 4B (Deraniyagala 1972: 151–4) at the Anuradhapura Gedige, and Bandaranayake recovered some from the Rampart site at Sigiriya (Bandaranayake 1989: 49).

Special find no: 87 Stratigraphic Phase: C	Context: 27se Weight: 7.68g
Special find no: 1144 Stratigraphic Phase: XCVII	Context: 25ne Weight: 22.94g
Special find no: 1434 Stratigraphic Phase: XCV	Context: 42nw Weight: 24.54g
Special find no: 854 Stratigraphic Phase: XCV	Context: 88ne Weight: 4.73g
Special find no: 2135 Stratigraphic Phase: XCV	Context: 285 Weight: 6.87g
Special find no: 2335 Stratigraphic Phase: XCV	Context: 316ne Weight: 12.09g
Special find no: 6047 Stratigraphic Phase: XCII	Context: 365nw Weight: 23.97g
Special find no: 5026 Stratigraphic Phase: XCII	Context: 367sw Weight: 5.08g
Special find no: 5952 Stratigraphic Phase: XCI	Context: 385sw Weight: 31.94g
Special find no: 6476 Stratigraphic Phase: XCI	Context: 406sw Weight: 13.79g
Special find no: 6700 Stratigraphic Phase: XCI	Context: 416ne Weight: 31.75g
Special find no: 5943 Stratigraphic Phase: XCI	Context: 422 Weight: 9.17g
Special find no: 8451 Stratigraphic Phase: LXXV	Context: 489 Weight: 25.01g
Special find no: 10071 Stratigraphic Phase: LXXI	Context: 607se Weight: 109.93g

3.2.22 Mushroom-headed nails

Only six mushroom-headed nails were recovered from ASW2 periods C, D & E to G. It is assumed that they performed a structural function. This category appears to be similar to Deraniyagala's type 1B from the Anuradhapura Gedige (Deraniyagala 1972: 151). Five such examples were recovered from Stratum 4A and one from Stratum 4B (ibid.: 153–4).

Special find no: 244 Stratigraphic Phase: XCV	Context: 56ne Weight: 13.86g
Special find no: 2983 Stratigraphic Phase: XCIII	Context: 304ne Weight: 34.18g
Special find no: 5269 Stratigraphic Phase: LXXXVI	Context: 376nw Weight: 33.91g
Special find no: 6959 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 42.92g

Special find no: 6961
Stratigraphic Phase: LXXXI

Context: 487ne
Weight: 44.44g

Special find no: 10070
Stratigraphic Phase: LXXII

Context: 601
Weight: 14.34g

3.2.23 Nailshafts and bars

Some of the 210 objects below may have formed part of composite objects or have been small tools manufactured from bars. However, it is likely that the majority were nailshafts and therefore performed a structural function. Their concentration in period G correlates with the mass of structural debris and collapse found in those contexts. It may well be that they indicate the beginnings of the use of ceramic tiles at ASW2, as large numbers of tiles associated with roof collapse have been found at the Jetavanaramaya monastic complex (Ratnayake 1984: 121) and the Abhayagiri Vihara (Wickramagamage 1984).

Special find no: 386 Stratigraphic Phase: CXV	Context: 3nw Weight: 30.27g
Special find no: 194 Stratigraphic Phase: CXIII	Context: 71se Weight: 3.78g
Special find no: 60 Stratigraphic Phase: CX	Context: 19sw Weight: 8.82g
Special find no: 39 Stratigraphic Phase: CV	Context: 19sw Weight: 2.07g
Special find no: 1127 Stratigraphic Phase: CIII	Context: 94ne Weight: 14.23g
Special find no: 91 Stratigraphic Phase: C	Context: 27se Weight: 20.63g
Special find no: 850 Stratigraphic Phase: C	Context: 41 Weight: 10.08g
Special find no: 454 Stratigraphic Phase: XCIX	Context: 51 Weight: 13.27g
Special find no: 656 Stratigraphic Phase: XCIX	Context: 187nw Weight: 7.05g
Special find no: 139 Stratigraphic Phase: XCVIII	Context: 48se Weight: 9.95g
Special find no: 843 Stratigraphic Phase: XCVII	Context: 25ne Weight: 21.87g
Special find no: 917 Stratigraphic Phase: XCVII	Context: 25nw Weight: 18.36g
Special find no: 955 Stratigraphic Phase: XCVII	Context: 25ne Weight: 8.06g
Special find no: 1128 Stratigraphic Phase: XCVII	Context: 25ne Weight: 11.11g
Special find no: 1129 Stratigraphic Phase: XCVII	Context: 25ne Weight: 20.69g
Special find no: 1440 Stratigraphic Phase: XCVII	Context: 25ne Weight: 12.17g
Special find no: 1435 Stratigraphic Phase: XCV	Context: 42nw Weight: 7.07g
Special find no: 624 Stratigraphic Phase: XCV	Context: 56sw Weight: 0.93g

Special find no: 1458 Stratigraphic Phase: XCV	Context: 76ne Weight: 6.25g	Special find no: 5202 Stratigraphic Phase: XCV	Context: 357 Weight: 8.1g
Special find no: 1444 Stratigraphic Phase: XCV	Context: 84nw Weight: 25.74g	Special find no: 2662 Stratigraphic Phase: XCV	Context: 359 Weight: 7.25g
Special find no: 922 Stratigraphic Phase: XCV	Context: 87sw Weight: 21.23g	Special find no: 2806 Stratigraphic Phase: XCV	Context: 373ne Weight: 13.25g
Special find no: 271 Stratigraphic Phase: XCV	Context: 88ne Weight: 5.42g	Special find no: 5326 Stratigraphic Phase: XCV	Context: 401sw Weight: 15.76g
Special find no: 8037 Stratigraphic Phase: XCV	Context: 88ne Weight: 50.02g	Special find no: 5983 Stratigraphic Phase: XCV	Context: 410 Weight: 10.61g
Special find no: 916 Stratigraphic Phase: XCV	Context: 100ne Weight: 12.12g	Special find no: 197 Stratigraphic Phase: XCIII	Context: 73sw Weight: 5.14g
Special find no: 1125 Stratigraphic Phase: XCV	Context: 100nw Weight: 8.68g	Special find no: 282 Stratigraphic Phase: XCIII	Context: 73sw Weight: 6.63g
Special find no: 418 Stratigraphic Phase: XCV	Context: 121ne Weight: 48.53g	Special find no: 298 Stratigraphic Phase: XCIII	Context: 73se Weight: 15.85g
Special find no: 921 Stratigraphic Phase: XCV	Context: 134se Weight: 14.51g	Special find no: 2610 Stratigraphic Phase: XCIII	Context: 73sw Weight: 18.82g
Special find no: 1467 Stratigraphic Phase: XCV	Context: 157se Weight: 5.44g	Special find no: 5445 Stratigraphic Phase: XCIII Comment: Three nail shafts.	Context: 73sw Weight: 33.19g
Special find no: 666 Stratigraphic Phase: XCV	Context: 158nw Weight: 18.92g	Special find no: 2057 Stratigraphic Phase: XCIII	Context: 304ne Weight: 20.97g
Special find no: 748 Stratigraphic Phase: XCV	Context: 158nw Weight: 11.28g	Special find no: 2058 Stratigraphic Phase: XCIII	Context: 304ne Weight: 5.31g
Special find no: 706 Stratigraphic Phase: XCV	Context: 197sw Weight: 13.41g	Special find no: 5453 Stratigraphic Phase: XCIII	Context: 304ne Weight: 14.37g
Special find no: 913 Stratigraphic Phase: XCV	Context: 197sw Weight: 9.95g	Special find no: 8035 Stratigraphic Phase: XCIII	Context: 305sw Weight: 13.96g
Special find no: 1433 Stratigraphic Phase: XCV	Context: 217se Weight: 19.19g	Special find no: 2074 Stratigraphic Phase: XCIII	Context: 306se Weight: 13.03g
Special find no: 2341 Stratigraphic Phase: XCV	Context: 253nw Weight: 11.67g	Special find no: 5188 Stratigraphic Phase: XCIII	Context: 306se Weight: 11.55g
Special find no: 1651 Stratigraphic Phase: XCV	Context: 256se Weight: 11.13g	Special find no: 5432 Stratigraphic Phase: XCIII	Context: 306 Weight: 27.56g
Special find no: 1576 Stratigraphic Phase: XCV	Context: 262se Weight: 16.8g	Special find no: 5936 Stratigraphic Phase: XCIII	Context: 309nw Weight: 14.15g
Special find no: 2333 Stratigraphic Phase: XCV	Context: 263nw Weight: 16.26g	Special find no: 5443 Stratigraphic Phase: XCIII	Context: 345sw Weight: 20.3g
Special find no: 1616 Stratigraphic Phase: XCV	Context: 284nw Weight: 21.87g	Special find no: 6236 Stratigraphic Phase: XCIII	Context: 388nw Weight: 23.31g
Special find no: 5946 Stratigraphic Phase: XCV	Context: 296ne Weight: 23.74g	Special find no: 5438 Stratigraphic Phase: XCII	Context: 364ne Weight: 14.63g
Special find no: 1693 Stratigraphic Phase: XCV	Context: 299se Weight: 16.94g	Special find no: 5955 Stratigraphic Phase: XCII	Context: 364 Weight: 8.31g
Special find no: 5939 Stratigraphic Phase: XCV	Context: 325ne Weight: 28.11g	Special find no: 2977 Stratigraphic Phase: XCII	Context: 365nw Weight: 12.6g
Special find no: 6108 Stratigraphic Phase: XCV	Context: 326nw Weight: 5.42g	Special find no: 2761 Stratigraphic Phase: XCII	Context: 365nw Weight: 6.03g
Special find no: 6116 Stratigraphic Phase: XCV	Context: 326nw Weight: 27.67g	Special find no: 2785 Stratigraphic Phase: XCII	Context: 365nw Weight: 4.34g
Special find no: 5185 Stratigraphic Phase: XCV	Context: 334ne Weight: 6.99g		

Metal Objects

Special find no: 2942 Stratigraphic Phase: XCII	Context: 365nw Weight: 15.4g	Special find no: 6651 Stratigraphic Phase: XCI	Context: 425sw Weight: 38.14g
Special find no: 2952 Stratigraphic Phase: XCII	Context: 365nw Weight: 28.15g	Special find no: 8460 Stratigraphic Phase: XCI	Context: 425 Weight: 22.69g
Special find no: 2964 Stratigraphic Phase: XCII	Context: 365nw Weight: 20.21g	Special find no: 5372 Stratigraphic Phase: XCI	Context: 427sw Weight: 10.45g
Special find no: 5039 Stratigraphic Phase: XCII	Context: 365nw Weight: 44.58g	Special find no: 6686 Stratigraphic Phase: XCI	Context: 427se Weight: 14.3g
Special find no: 5064 Stratigraphic Phase: XCII	Context: 365nw Weight: 25.72g	Special find no: 6210 Stratigraphic Phase: LXXXIX	Context: 383ne Weight: 10.64g
Special find no: 5968 Stratigraphic Phase: XCII	Context: 365nw Weight: 53.78g	Special find no: 5964 Stratigraphic Phase: LXXXVIII	Context: 375sw Weight: 8.65g
Special find no: 6072 Stratigraphic Phase: XCII	Context: 365nw Weight: 18.26g	Special find no: 6636 Stratigraphic Phase: LXXXVIII	Context: 409ne Weight: 24.86g
Special find no: 2400 Stratigraphic Phase: XCII	Context: 366 Weight: 13.65g	Special find no: 6631 Stratigraphic Phase: LXXXVIII	Context: 426ne Weight: 23.91g
Special find no: 2914 Stratigraphic Phase: XCII	Context: 367sw Weight: 37.42g	Special find no: 8254 Stratigraphic Phase: LXXXVIII	Context: 426 Weight: 2.97g
Special find no: 2939 Stratigraphic Phase: XCII	Context: 367sw Weight: 17.37g	Special find no: 6763 Stratigraphic Phase: LXXXVII	Context: 437ne Weight: 22.67g
Special find no: 5024 Stratigraphic Phase: XCII	Context: 367sw Weight: 5.54g	Special find no: 5376 Stratigraphic Phase: LXXXVII	Context: 441ne Weight: 21.51g
Special find no: 2916 Stratigraphic Phase: XCII	Context: 367sw Weight: 13.57g	Special find no: 6737 Stratigraphic Phase: LXXXVII	Context: 448sw Weight: 24.58g
Special find no: 5948 Stratigraphic Phase: XCII	Context: 367sw Weight: 33.83g	Special find no: 5268 Stratigraphic Phase: LXXXVI	Context: 376nw Weight: 29.15g
Special find no: 5452 Stratigraphic Phase: XCI	Context: 385se Weight: 14.47g	Special find no: 6742 Stratigraphic Phase: LXXXVI	Context: 457sw Weight: 7.7g
Special find no: 5308 Stratigraphic Phase: XCI	Context: 386nw Weight: 13.79g	Special find no: 6781 Stratigraphic Phase: LXXXVI	Context: 457sw Weight: 26.88g
Special find no: 6229 Stratigraphic Phase: XCI	Context: 386nw Weight: 16.78g	Special find no: 15037 Stratigraphic Phase: LXXXV	Context: 407 Weight: 6.12g
Special find no: 6262 Stratigraphic Phase: XCI	Context: 386nw Weight: 17.94g	Special find no: 8261 Stratigraphic Phase: LXXXI	Context: 467nw Weight: 3.92g
Special find no: 6296 Stratigraphic Phase: XCI	Context: 386nw Weight: 18.89g	Special find no: 15044 Stratigraphic Phase: LXXXIII	Context: 605ne Weight: 8.69g
Special find no: 6298 Stratigraphic Phase: XCI	Context: 386nw Weight: 3.17g	Special find no: 15045 Stratigraphic Phase: LXXXIII	Context: 605ne Weight: 13.95g
Special find no: 6561 Stratigraphic Phase: XCI	Context: 403ne Weight: 35.94g	Special find no: 15046 Stratigraphic Phase: LXXXIII	Context: 605ne Weight: 41.83g
Special find no: 6539 Stratigraphic Phase: XCI	Context: 404 Weight: 23.42g	Special find no: 15107 Stratigraphic Phase: LXXXIII	Context: 632ne Weight: 42.54g
Special find no: 6443 Stratigraphic Phase: XCI	Context: 406sw Weight: 10.74g	Special find no: 8266 Stratigraphic Phase: LXXXI	Context: 467 Weight: 12.24g
Special find no: 6491 Stratigraphic Phase: XCI	Context: 406sw Weight: 26.93g	Special find no: 8455 Stratigraphic Phase: LXXXI	Context: 467 Weight: 13.48g
Special find no: 6490 Stratigraphic Phase: XCI	Context: 416ne Weight: 24.68g	Special find no: 8256 Stratigraphic Phase: LXXXI	Context: 469se Weight: 43.42g
Special find no: 5961 Stratigraphic Phase: XCI	Context: 424nw Weight: 2.06g	Special find no: 6819 Stratigraphic Phase: LXXXI	Context: 470nw Weight: 28.49g
Special find no: 5442 Stratigraphic Phase: XCI	Context: 425sw Weight: 4.38g	Special find no: 8257 Stratigraphic Phase: LXXXI	Context: 470 Weight: 7.09g

Anuradhapura: The Artefacts

Special find no: 6856 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 27.27g	Special find no: 10058 Stratigraphic Phase: LXXI	Context: 607se Weight: 63.91g
Special find no: 8453 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 3.09g	Special find no: 15056 Stratigraphic Phase: LXXI	Context: 607 Weight: 44.51g
Special find no: 8457 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 11.03g	Special find no: 15061 Stratigraphic Phase: LXXI	Context: 607 Weight: 19.79g
Special find no: 7074 Stratigraphic Phase: LXXX	Context: 495ne Weight: 42.78g	Special find no: 10030 Stratigraphic Phase: LXX	Context: 606 Weight: 39.49g
Special find no: 8213 Stratigraphic Phase: LXXX	Context: 495 Weight: 23.75g	Special find no: 10077 Stratigraphic Phase: LXX	Context: 616ne Weight: 66.82g
Special find no: 15638 Stratigraphic Phase: LXXVI	Context: 503ne Weight: 42.64g	Special find no: 10109 Stratigraphic Phase: LXX	Context: 616se Weight: 43.24g
Special find no: 15968 Stratigraphic Phase: LXXVI	Context: 503ne Weight: 21.5g	Special find no: 15081 Stratigraphic Phase: LXX	Context: 616se Weight: 9.27g
Special find no: 7239 Stratigraphic Phase: LXXVI	Context: 509sw Weight: 21.43g	Special find no: 15872 Stratigraphic Phase: LXX	Context: 616se Weight: 2.27g
Special find no: 8823 Stratigraphic Phase: LXXVI	Context: 510 Weight: 16.42g	Special find no: 15078 Stratigraphic Phase: LXVIII	Context: 615 Weight: 23.95g
Special find no: 7212 Stratigraphic Phase: LXXVI	Context: 511ne Weight: 4.48g	Special find no: 15643 Stratigraphic Phase: LXVIII	Context: 615 Weight: 23.41g
Special find no: 8212 Stratigraphic Phase: LXXVI	Context: 511 Weight: 6.22g	Special find no: 15644 Stratigraphic Phase: LXVIII	Context: 615 Weight: 26.10g
Special find no: 8452 Stratigraphic Phase: LXXV	Context: 489 Weight: 2.64g	Special find no: 15647 Stratigraphic Phase: LXVIII	Context: 615 Weight: 22.90g
Special find no: 8263 Stratigraphic Phase: LXXV	Context: 490sw Weight: 6.42g	Special find no: 15932 Stratigraphic Phase: LXVIII	Context: 615nw Weight: 12.92g
Special find no: 8459 Stratigraphic Phase: LXXV	Context: 490sw Weight: 5.35g	Special find no: 10171 Stratigraphic Phase: LXVII	Context: 665nw Weight: 23.84g
Special find no: 8468 Stratigraphic Phase: LXXV	Context: 490sw Weight: 14.97g	Special find no: 16512 Stratigraphic Phase: LXV	Context: 717 Weight: 6.16g
Special find no: 8016 Stratigraphic Phase: LXXV	Context: 492se Weight: 4.9g	Special find no: 16163 Stratigraphic Phase: LXV	Context: 735ne Weight: 48.03g
Special find no: 8107 Stratigraphic Phase: LXXV	Context: 492 Weight: 22.78g	Special find no: 16162 Stratigraphic Phase: LXIV	Context: 698nw Weight: 22.46g
Special find no: 7220 Stratigraphic Phase: LXXV	Context: 493se Weight: 10.17g	Special find no: 16164 Stratigraphic Phase: LXIV	Context: 698nw Weight: 5.41g
Special find no: 7115 Stratigraphic Phase: LXXV	Context: 494ne Weight: 94.52g	Special find no: 15870 Stratigraphic Phase: LXII	Context: 714se Weight: 23.12g
Special find no: 10146 Stratigraphic Phase: LXXIII	Context: 635nw Weight: 18.35g	Special find no: 16033 Stratigraphic Phase: LXII	Context: 714sw Weight: 19.06g
Special find no: 15863 Stratigraphic Phase: LXXIII	Context: 635 Weight: 7.24g	Special find no: 16355 Stratigraphic Phase: LX	Context: 767ne Weight: 13.14g
Special find no: 10049 Stratigraphic Phase: LXXII	Context: 601 Weight: 50.01g	Special find no: 16357 Stratigraphic Phase: LX	Context: 767ne Weight: 5.82g
Special find no: 15902 Stratigraphic Phase: LXXII	Context: 602ne Weight: 10.02g	Special find no: 10324 Stratigraphic Phase: XLVII	Context: 791ne Weight: 7.16g
Special find no: 15937 Stratigraphic Phase: LXXII	Context: 659 Weight: 10.42g	Special find no: 16615 Stratigraphic Phase: XLVII	Context: 791nw Weight: 31.38g
Special find no: 15999 Stratigraphic Phase: LXXII	Context: 659se Weight: 64.65g	Special find no: 16349 Stratigraphic Phase: XLVII	Context: 791nw Weight: 34.66g
Special find no: 16009 Stratigraphic Phase: LXXII	Context: 659 Weight: 6.79g	Special find no: 16345 Stratigraphic Phase: XXXVIII	Context: 856 Weight: 49.66g

Metal Objects

Special find no: 10304 Stratigraphic Phase: XXXVII	Context: 834nw Weight: 7.13g
Special find no: 16516 Stratigraphic Phase: XXXVII	Context: 834sw Weight: 28.65g
Special find no: 16514 Stratigraphic Phase: XXXV	Context: 837se Weight: 9.15g
Special find no: 16545 Stratigraphic Phase: XXXV	Context: 837nw Weight: 8.51g
Special find no: 16546 Stratigraphic Phase: XXXV	Context: 837nw Weight: 23.25g
Special find no: 16562 Stratigraphic Phase: XXXIII	Context: 880se Weight: 7.58g
Special find no: 16550 Stratigraphic Phase: XXXIII	Context: 880se Weight: 10.23g
Special find no: 16563 Stratigraphic Phase: XXXIII	Context: 880se Weight: 10.69g
Special find no: 16681 Stratigraphic Phase: XXXII	Context: 914se Weight: 54.08g
Special find no: 10423 Stratigraphic Phase: XXX	Context: 961se Weight: 84.36g
Special find no: 10431 Stratigraphic Phase: XXX	Context: 961se Weight: 30.49g
Special find no: 16671 Stratigraphic Phase: XXX	Context: 961 Weight: 11.99g
Special find no: 16753 Stratigraphic Phase: XXX	Context: 961se Weight: 19.79g
Special find no: 16756 Stratigraphic Phase: XXX	Context: 961se Weight: 16.21g
Special find no: 10555 Stratigraphic Phase: XXVIII	Context: 977se Weight: 14.26g
Special find no: 16770 Stratigraphic Phase: XXVIII Comments: Two nail shafts.	Context: 977nw Weight: 12.46g
Special find no: 16808 Stratigraphic Phase: XXVIII	Context: 977sw Weight: 23.21g
Special find no: 16809 Stratigraphic Phase: XXVIII	Context: 977sw Weight: 19.63g
Special find no: 16813 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 10.63g
Special find no: 16819 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 14.76g
Special find no: 17073 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 12.07g
Special find no: 17173 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 17.78g
Special find no: 17179 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 9.16g
Special find no: 17181 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 27.95g
Special find no: 17182 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 35.71g
Special find no: 17193 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 13.86g

Special find no: 17198 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 16.42g
Special find no: 17202 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 12.43g
Special find no: 17204 Stratigraphic Phase: XXVIII	Context: 977 Weight: 17.65g
Special find no: 17208 Stratigraphic Phase: XXVIII	Context: 977 Weight: 28.21g
Special find no: 17210 Stratigraphic Phase: XXVIII	Context: 977 Weight: 23.74g
Special find no: 17211 Stratigraphic Phase: XXVIII	Context: 977 Weight: 19.21g
Special find no: 17461 Stratigraphic Phase: XVIII	Context: 1175 Weight: 9.18g
Special find no: 16905 Stratigraphic Phase: XXVI	Context: 1101se Weight: 48.62g
Special find no: 16906 Stratigraphic Phase: XXVI	Context: 1101se Weight: 11.7g
Special find no: 16908 Stratigraphic Phase: XXVI	Context: 1101se Weight: 36.86g
Special find no: 17501 Stratigraphic Phase: XVII	Context: 1382 Weight: 4.5g

3.2.24 Other objects

This category contains iron objects the exact classification of which is uncertain. It includes modified and composite bars and sheets, such as clench plates. No comment as to the periodization of these objects has been attempted, as they probably had very different functions.

Special find no: 6337 Stratigraphic Phase: XCV Comments: Large triangular object.	Context: 396se Weight: 444.4g
Special find no: 852 Stratigraphic Phase: XCV Dimensions: Large bar measures 4.8 x 0.9cm, small bar measures 0.7 x 1.6cm. Comments: Two bars penetrate.	Context: 88ne Weight: 8.87g
Special find no: 725 Stratigraphic Phase: XCV Dimensions: Square is 3cm. Comments: Lump, square on one side, rounded on others. Use unknown.	Context: 197 Weight: 13.41g
Special find no: 791 Stratigraphic Phase: XCIII Dimensions: 4.5 x 3.5cm. Comments: L shape, use unknown. One bar tapers to a point.	Context: 200sw Weight: 21.2g
Special find no: 5940 Stratigraphic Phase: XCIII Dimensions: Radius 6cm. Comments: Two fragments making a circle, C in cross-section, mouth on inside.	Context: 388sw Weight: 70.55g
Special find no: 2975 Stratigraphic Phase: XCII Dimensions: Overall shape is 4.9 x 3.2 cm. Bars are 0.6 and 0.8cm thick. Comments: Candlestick? Two bars IL in shape.	Context: 365nw Weight: 27.1g
Special find no: 5447 Stratigraphic Phase: XCI	Context: 386nw Weight: 8.8g

Comments: Rectangular sheet, broken one end, round at the other.
Circular hole near round end.

Special find no: 6504 Context: 406sw
Stratigraphic Phase: XCI Weight: 53.02
Dimensions: Object measures 4.9 x 1.3cm, the mushroom-headed
nail is 2.2mm.
Comments: Bar with nail through – probably a bracket.

Special find no: 6674 Context: 416ne
Stratigraphic Phase: XCI Weight: 33.5g
Dimensions: 7.1 x 2.1cm.
Comments: Incomplete cylinder.

Special find no: 6683 Context: 416ne
Stratigraphic Phase: XCI Weight: 41.84g
Dimensions: Complete object measures 5.9 x 2.3cm, overall shaft is
0.6cm.
Comments: Clench plate and nail.

Special find no: 6661 Context: 426ne
Stratigraphic Phase: LXXXVIII Weight: 29.07g
Dimensions: Complete object measures 4.7 x 2.2cm, shaft is 0.7cm.
Comments: Clench plate and nail.

Special find no: 15936 Context: 659
Stratigraphic Phase: LXXII Weight: 23.12g
Dimensions: Largest fragment is 4 x 2.5 x 0.3cm, nail is 0.7cm
diameter and is broken at one end.
Comments: Two sheet fragments, each has a rivet.

Special find no: 10068 Context: 607se
Stratigraphic Phase: LXXI Weight: 11.72g
Dimensions: Radius 1cm.
Comments: Incomplete sheet bent at one end to go round pole, also
round nail hole.

Special find no: 15055 Context: 607
Stratigraphic Phase: LXXI Weight: 31.88g
Dimensions: 4.8 x 2.8 x 1cm.
Comments: Two pieces of sheet, major piece is broken at one end.
It is C-shaped in cross-section with a wood pseudomorph inside
with a nail at the unbroken rounded end. The other piece is
similar, no nail, it has only one unbroken edge.
[Fig. 3.3]

Special find no: 15050 Context: 606se
Stratigraphic Phase: LXX Weight: 35.14g
Dimensions: 4.3 x 1.4cm, hole is 0.4cm in diameter.
Comments: Rectangular bar with a circular hole in the middle for a
nail?

Special find no: 10115 Context: 616se
Stratigraphic Phase: LXX Weight: 174.55g
Dimensions: 15.5 x 2.71 x 1.58cm
Comments: Large bar tapers to a point at either end. Use unknown
– similar to sf 10264.

Special find no: 15875 Context: 616se
Stratigraphic Phase: LXX Weight: 6.35g
Dimensions: The plate measures 2.5cm long, maximum length is
1.8cm.
Comments: Nail with clench plate, semicircle at one end, diamond
at the other.
[Fig. 3.3]

Special find no: 10236 Context: 714sw
Stratigraphic Phase: LIV Weight: 196.32g
Dimensions: 9.45 x 6.09 x 0.73cm
Comments: Incomplete, very corroded large disc.

Special find no: 10264 Context: 714sw
Stratigraphic Phase: LIV Weight: 195.78g
Dimensions: 15.5 x 3.83 x 1.63cm
Comments: Large bar tapers to a point at either end, unknown use.
Similar to sf 10115.

Special find no: 16015 Context: 714sw
Stratigraphic Phase: LIV Weight: 36.32g
Dimensions: 2.2 x 1 x 3cm, hole is 0.7cm diameter.
Comments: Bar, rectangle cross-section, rounded at one end with a
round hole.

Special find no: 15994 Context: 729sw
Stratigraphic Phase: LIII Weight: 11.44g
Dimensions: 6.7 x 1.1cm x 0.95cm
Comments: Bar, bent around to make circle and then back on itself.

Special find no: 15995 Context: 729sw
Stratigraphic Phase: LIII Weight: 109.41g
Dimensions: 5 x 4.5 x 15cm.
Comments: Rounded bar, bent around, probably the hinge of a tool
like shears or tongs.
[Fig. 3.3]

Special find no: 10294 Context: 772sw
Stratigraphic Phase: XLII Weight: 936.29g
Dimensions: 20 x 5 x 4 x 0.75cm.
Comments: Halberd? Complete in two pieces, two phalanges wrap
the shaft completely. Very rusty.

Special find no: 16803 Context: 964
Stratigraphic Phase: XXXII Weight: 35.2g
Dimensions: 6.7 x 1.1cm.
Comments: Rectangular sheet with bar into the middle.

Special find no: 10425 Context: 961se
Stratigraphic Phase: XXX Weight: 29.02g
Dimensions: 3.73 x 2.04 x 0.35cm
Comments: Blade fragment or sheet?

Special find no: 16907 Context: 1101se
Stratigraphic Phase: XXVI Weight: 23.55g
Dimensions: 6.1 x 0.7cm.
Comments: Complete shallow triangular object, unknown purpose.

Special find no: 17392 Context: 1172se
Stratigraphic Phase: XXII Weight: 67.1g
Dimensions: 6.7 x 1.1cm.
Comments: Bar with wine bottle neck and hole at end.

3.2.25 Unidentifiable fragments

The following objects were so badly fragmented or corroded that no function of the piece can be determined. As we are unclear as to their function, we have not carried out any phased assessment of the objects.

Special find no: 99 Context: 26
Stratigraphic Phase: CIV Weight: 2.64g

Special find no: 919 Context: 25ne
Stratigraphic Phase: XCVII Weight: 1.06g

Special find no: 241 Context: 56nw
Stratigraphic Phase: XCV Weight: 6.45g

Special find no: 1456 Context: 87sw
Stratigraphic Phase: XCV Weight: 8.35g

Special find no: 5187 Context: 325ne
Stratigraphic Phase: XCV Weight: 10.21g

Special find no: 1991 Context: 343nw
Stratigraphic Phase: XCV Weight: 9.25g

Special find no: 2659 Context: 356ne
Stratigraphic Phase: XCV Weight: 79.66g

Special find no: 5684 Context: 411sw
Stratigraphic Phase: XCV Weight: 97.85g

Special find no: 37 Context: 15
Stratigraphic Phase: CXI Weight: 2.64g

Metal Objects

Special find no: 6332 Stratigraphic Phase: XCI	Context: 386 Weight: 8.7g	Special find no: 16011 Stratigraphic Phase: LXXII	Context: 659se Weight: 7.36g
Special find no: 5934 Stratigraphic Phase: XCI	Context: 404ne Weight: 2.79g	Special find no: 15049 Stratigraphic Phase: LXX	Context: 606se Weight: 3.98g
Special find no: 5434 Stratigraphic Phase: XCI	Context: 406sw Weight: 0.87g	Special find no: 10085 Stratigraphic Phase: LXX Comments: Unknown object part of corroded mass which includes two fragments of an axe.	Context: 616se Weight: 166.08g
Special find no: 6558 Stratigraphic Phase: XCI	Context: 425sw Weight: 14.65g	Special find no: 15083 Stratigraphic Phase: LXX	Context: 616se Weight: 3.05g
Special find no: 15682 Stratigraphic Phase: LXXXVIII	Context: 409nw Weight: 5.78g	Special find no: 15877 Stratigraphic Phase: LXX	Context: 616se Weight: 1.28g
Special find no: 6617 Stratigraphic Phase: LXXXVIII	Context: 426ne Weight: 12.4g	Special find no: 15901 Stratigraphic Phase: LXVIII	Context: 615 Weight: 12.7g
Special find no: 6741 Stratigraphic Phase: LXXXVIII	Context: 445sw Weight: 45.4g	Special find no: 15935 Stratigraphic Phase: LXVI	Context: 663nw Weight: 28.52g
Special find no: 2889 Stratigraphic Phase: LXXXVI	Context: 376nw Weight: 18.2g	Special find no: 16341 Stratigraphic Phase: LXVI	Context: 663ne Weight: 15.64g
Special find no: 2890 Stratigraphic Phase: LXXXVI	Context: 376nw Weight: 18.2g	Special find no: 15934 Stratigraphic Phase: LXIV	Context: 670nw Weight: 11.02g
Special find no: 15036 Stratigraphic Phase: LXXXV	Context: 407ne Weight: 10.91g	Special find no: 16031 Stratigraphic Phase: LXII	Context: 715se Weight: 15.65g
Special find no: 15039 Stratigraphic Phase: LXXXV	Context: 407ne Weight: 2.55g	Special find no: 16356 Stratigraphic Phase: LX	Context: 767ne Weight: 7.99g
Special find no: 15108 Stratigraphic Phase: LXXXIII	Context: 605nw Weight: 6.12g	Special find no: 16499 Stratigraphic Phase: LX	Context: 767 Weight: 76.07g
Special find no: 8264 Stratigraphic Phase: LXXXI	Context: 469se Weight: 2.95g	Special find no: 16017 Stratigraphic Phase: LIV	Context: 714sw Weight: 37.03g
Special find no: 6936 Stratigraphic Phase: LXXXI	Context: 470sw Weight: 2.33g	Special find no: 16518 Stratigraphic Phase: XLVII	Context: 791nw Weight: 7.76g
Special find no: 16338 Stratigraphic Phase: LXXXVI	Context: 503 Weight: 4.49g	Special find no: 16616 Stratigraphic Phase: XLVII	Context: 791nw Weight: 4.63g
Special find no: 8285 Stratigraphic Phase: LXXXVI	Context: 505 Weight: 6.8g	Special find no: 16170 Stratigraphic Phase: XLIII	Context: 787se Weight: 41g
Special find no: 8458 Stratigraphic Phase: LXXV	Context: 490sw Weight: 1.64g	Special find no: 17607 Stratigraphic Phase: XXXVI	Context: 1394ne Weight: 1.13g
Special find no: 5996 Stratigraphic Phase: LXXV	Context: 494ne Weight: 17.75g	Special find no: 16614 Stratigraphic Phase: XXXV	Context: 837se Weight: 26.35g
Special find no: 15041 Stratigraphic Phase: LXXII	Context: 601se Weight: 22.29g	Special find no: 16619 Stratigraphic Phase: XXXII	Context: 894nw Weight: 9.38g
Special find no: 15042 Stratigraphic Phase: LXXII	Context: 601se Weight: 5.42g	Special find no: 10397 Stratigraphic Phase: XXX	Context: 961ne Weight: 19.59g
Special find no: 15043 Stratigraphic Phase: LXXII	Context: 601se Weight: 15.43g	Special find no: 16672 Stratigraphic Phase: XXX	Context: 961 Weight: 39.1g
Special find no: 15971 Stratigraphic Phase: LXXII	Context: 601se Weight: 6.52g	Special find no: 17028 Stratigraphic Phase: XXX	Context: 961ne Weight: 54.55g
Special find no: 15939 Stratigraphic Phase: LXXII	Context: 659 Weight: 1.44g	Special find no: 17055 Stratigraphic Phase: XXX	Context: 977ne Weight: 36.68g
Special find no: 15997 Stratigraphic Phase: LXXII	Context: 659se Weight: 28.84g	Special find no: 17082 Stratigraphic Phase: XXX	Context: 977ne Weight: 6.34g
Special find no: 16008 Stratigraphic Phase: LXXII	Context: 659se Weight: 8.45g	Special find no: 10508 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 4.39g
Special find no: 16010 Stratigraphic Phase: LXXII	Context: 659se Weight: 6.72g		

Special find no: 16771 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 5.26g
Special find no: 16775 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 4.32g
Special find no: 16817 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 6.12g
Special find no: 16831 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 65.8g
Special find no: 16844 Stratigraphic Phase: XXVIII	Context: 977 Weight: 4.04g
Special find no: 16845 Stratigraphic Phase: XXVIII	Context: 977 Weight: 11.78g
Special find no: 16847 Stratigraphic Phase: XXVIII	Context: 977 Weight: 4.56g
Special find no: 17172 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 32.04g
Special find no: 17174 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 17.78g
Special find no: 17178 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 34.21g
Special find no: 17187 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 6.43g
Special find no: 17190 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 8.75g
Special find no: 17191 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 26.28g
Special find no: 17192 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 0.77g
Special find no: 17227 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 0.91g
Special find no: 17213 Stratigraphic Phase: XXVIII	Context: 977 Weight: 1.23g
Special find no: 17278 Stratigraphic Phase: XXVIII	Context: 977sw Weight: 33.23g
Special find no: 17325 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 5.7g
Special find no: 17327 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 6.07g
Special find no: 17356 Stratigraphic Phase: XXVIII	Context: 977se Weight: 12.9g
Special find no: 17358 Stratigraphic Phase: XXVIII	Context: 977se Weight: 22.27g
Special find no: 16904 Stratigraphic Phase: XXVI	Context: 1101se Weight: 14.24g
Special find no: 17359 Stratigraphic Phase: XXIII	Context: 1125se Weight: 2.92g
Special find no: 17394 Stratigraphic Phase: XXII	Context: 1172se Weight: 2.97g
Special find no: 17395 Stratigraphic Phase: XXII	Context: 1172se Weight: 16.92g
Special find no: 17271 Stratigraphic Phase: XIX	Context: 1292se Weight: 8.1g

Special find no: 17403 Stratigraphic Phase: XVII	Context: 1391se Weight: 20.47g
Special find no: 17485 Stratigraphic Phase: XVII	Context: 1483sw Weight: 17.56g
Special find no: 17573 Stratigraphic Phase: XV	Context: 1451 Weight: 2.41g
Special find no: 17612 Stratigraphic Phase: XIII	Context: 1544nw Weight: 1.22g
Special find no: 17486 Stratigraphic Phase: XII	Context: 1496nw Weight: 6.15g
Special find no: 17568 Stratigraphic Phase: X	Context: 1615 Weight: 1.2g
Special find no: 17575 Stratigraphic Phase: VIII	Context: 1616 Weight: 2.35g

3.3 Copper-alloy objects

Fifteen categories of copper-alloy objects were identified: bells, kohl sticks, stamp seals, rings, vessels, petal decoration, mirror, stupa umbrella (?), nails, pins/styli, wire, sheets, bars, unidentified objects and unidentified fragments (see Table 3.3). The earliest copper-alloy objects were two fragments of sheeting and three lengths of wire in period J. In the following period – I – rings, vessels, nails and bars are found, while period G sees an expansion of artefact categories with the first bells, kohl sticks, mirrors, petal decoration and possible stupa umbrella. The categories are further widened by the addition of a stamp seal in period F; in addition this period has a large number of votive objects found in the foundations of the pillared hall.

3.3.1 Bells

Bells appear to be fairly long-lived archaeological phenomena. A single example was found at the Iron Age urn cemetery at Pomparippu and a further three at the mediaeval Alahana Parivena at Polonnaruwa (Begley 1981: 81; Prematilleke 1982b: 58, 63; 1985: 105). None of the four was illustrated, so it is impossible to attempt to differentiate chronological indicators in style or form. Two bells were recovered from Maski (Thapar 1957: 114–15). One, four-sided and conical, dated to between AD 0 and AD 200 and the other, a rattle with slit and double loop for suspension, from the mediaeval period (ibid.). Parallels to the latter have also been identified at Arikamedu, dating to the second century AD (Wheeler 1946: 103–104), and at Brahmagiri (Wheeler 1948: 268). However, the five bells recovered from trench ASW2 were limited to younger contexts dating to between the first century BC and the middle of the first millennium AD. Special find 1757 was recovered from context 318, the fill of a robber pit cut during stratigraphic phase XCV; sf 1475 was recovered from context 200, the foundations of the classic Anuradhapura-period pillared hall; and sfs 6541, 6290 and 6804 were recovered from the foundations of structures dating to structural period G. They all consist of a rounded sheet of copper alloy pierced by a rod for hanging. A further example was recovered from one of the test pits by the Citadel's southern gate (Ueyama and Nozaki 1993: 66–67). It

appears that the majority of the examples from ASW2 belong to Leshnik's Category VI Class B1. He states that such jingles have been in use from the Chalcolithic to the present day but that only one example is known from the 'megalithic' burial sites (Leshnik 1974: 185).

Special find no: 1757 Context: 318se
Stratigraphic Phase: XCV Weight: 2.47g
Dimensions: 2 x 1cm and 2 x 1cm
Comments: Bell almost complete, missing bead and part of chamber. Hook is a loop square cross-section, chamber is a sphere with a long oval crack, loop is perpendicular to length of chamber (sphere is not perfect).
[Plate 3.3; Fig. 3.4]

Special find no: 6290 Context: 386nw
Stratigraphic Phase: XCI Weight: 2.91g
Dimensions: 1 x 0.7cm
Comments: Bell almost complete, missing half of handle and bead. Sheet bent into flattened ball with square looped handle.
[Fig. 3.4]

Special find no: 1475 Context: 200sw
Stratigraphic Phase: XCIII Weight: 2.7g
Dimensions: 1 x 2cm
Comments: Probably a fragment of a bell, only the handle survives totally. It is a square cross-section rod bent round and possibly joined to itself. The base of this was possibly welded to the oval-shaped bell, which only survives near the join.
[Plate 3.3; Fig. 3.4]

Special find no: 6804 Context: 437se
Stratigraphic Phase: LXXXVII Weight: 2.68g
Dimensions: 2 x 1.5cm
Comments: Bell complete, including bead. Sheet bent into flattened ball with square looped handle.
[Fig. 3.4]

Special find no: 6541 Context: 409
Stratigraphic Phase: LXXXVIII Weight: 2.35g
Dimensions: 4 x 4 x 3.4cm. The sheet is 0.1cm thick.
Comments: Sheet bent into a flattened ball; it is in several pieces and is possibly a bell.

3.3.2 Kohl sticks

All three kohl sticks from ASW2 were found in structural phase G5, which dates to the first century AD. Special find 6347 was found on paving 403, sf 6178 in collapse 385 and sf 2891 in levelling 375. In technical terms they consist of a rounded bar with widened and rounded ends. Deraniyagala recovered one example, with 'buds' on both ends, from stratum 4B at the Gedige site (Deraniyagala 1972: 145–6) which is dated to between the second century BC and the first century AD (idem 1992: 715). At least one and possibly further examples were recovered from the excavations at Pomparippu (Begley 1981: 81). In the most complete example a 'bud' had been formed at one end and a slight point at the other (ibid.). Three similar objects with a 'bud' at one or both ends have been found at Sirkap, Taxila, in pre-Structural and Phase IV levels (Ghosh 1948: 78). A further example from Atranjikhara, 'budded' at both ends, was dated to Period IV Phase D (c. 200–50 BC) (Gaur 1983: 444).

Special find no: 6347 Context: 403
Stratigraphic Phase: XCI Weight: 2.48g
Dimensions: Diameters of 0.3cm at the ends and 0.15cm in the middle.
Comments: Kohl stick. Two bulbous ends. Broken but complete.
[Plate 3.3; Fig. 3.4]

Special find no: 6178 Context: 385se
Stratigraphic Phase: XCI Weight: 3.86g
Dimensions: 6.3cm long with diameters of 0.4cm at ends and 0.2cm in middle
Comments: Kohl stick, two bulbous ends. Broken but complete.
[Plate 3.3; Fig. 3.4]

Special find no: 2891 Context: 375nw
Stratigraphic Phase: LXXXVIII Weight: 3.71g
Dimensions: 5.8cm long and 0.3cm wide
Comments: Kohl stick, gradual taper, rounded at large end, possible break at other end.
[Plate 3.3]

3.3.3 Stamp seal

Only one example of a stamp seal, sf 676, was recovered from ASW2. It was found within the packing of pillar 364, part of period F's pillared hall, and is assumed to be part of 364's votive deposits. It consists of a rounded bar or cylinder welded onto the back of a square plate.

Special find no: 676 Context: 194nw
Stratigraphic Phase: XCIII Weight: 5g
Dimensions: The square is 2.6cm and 2.4cm high
Comments: Stamp seal? Complete except for a corner. It has a square head tapering to a circular shaft with a tiny bump at the end which is too small to be a casting raiser. The square has marks of working, but is smooth on the larger scale. The cylinder is crudely worked and was possibly welded to the back.
[Plate 3.4; Fig. 3.4]

3.3.4 Rings

Three of the nine rings were recovered from the foundations of the pillared hall, while the remainder – with the exception of sf 5938 – were recovered from old land surfaces within periods G, H and I. All but two (sfs 5938 and 2850) appear to have been made from gently rounded bars rather than being cast. Some fragments of a copper-alloy object, tentatively identified as a ring, were recovered from one of the urn burials at Pomparippu (Begley 1981: 80).

Special find no: 5938 Context: 334ne
Stratigraphic Phase: XCV Weight: 0.61g
Dimensions: 2 x 1cm
Comments: Finger ring fragment, D-shaped loop. Only part of loop and face survive – approximately a quarter. The face is decorated, the design is raised above the base, it was probably cast, not carved. The design has an outer border, two lines perpendicular to the loop, a complicated symbol partially survives.
[Fig. 3.4]

Special find no: 2857 Context: 374nw
Stratigraphic Phase: XCIII Weight: 10.36g
Dimensions: 2.2 x 1 x 1cm
Comments: Bar slight curve, very chunky for ring (similar curve)!

Special find no: 2850 Context: 364ne
Stratigraphic Phase: XCII Weight: 3.52g
Dimensions: 2.1cm diameter
Comments: Wire finger ring twisted to form face.
[Plate 3.5; Fig. 3.4]

Special find no: 2873 Context: 364ne
Stratigraphic Phase: XCII Weight: 5g
Dimensions: 3 x 2 x 1cm
Comments: Complete ring. The shaft has a D cross-section. The face is oval and flat.
[Plate 3.5; Fig. 3.4]

Special find no: 2791 Context: 365nw
Stratigraphic Phase: XCII Weight: 3g
Dimensions: Radius 1cm
Comments: Bar, possibly a ring. Circular cross-section. 16% survives.

Special find no: 6993 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 0.62g
Dimensions: Diameter is 2cm, thickness of bar 2 x 1cm.
Comments: Finger ring or bent bar. They are not joined; it is not a perfect circle. The cross-section is rectangular and the edges are well rounded.

Special find no: 10204 Context: 670sw
Stratigraphic Phase: LXIV Weight: 6.5g
Dimensions: Outer diameter 2.2cm, inner diameter 1.1cm.
Comments: Very chunky ring. The cross-section is D-shaped.

Special find no: 16750 Context: 961se
Stratigraphic Phase: XXX Weight: 8.98g
Dimensions: 2.3cm long and 0.6cm in diameter.
Comments: Bar slightly curved, could be a finger ring?

Special find no: 16828 Context: 977se
Stratigraphic Phase: XXVIII Weight: 5g
Dimensions: 3 x 1 x 0.5cm.
Comments: Bar curves slightly – possible ring.

3.3.5 Vessels

Four copper-alloy objects were recovered from trench ASW2. Sf 1631 was found in the fills of a period D robber pit; sf 2774 was recovered from one of the pillars of the period F structure; sf 10147 was recovered from the fill of phase G2 pit 636; and sf 16159 was recovered from old land surface 729, into which were cut the foundations of structural period I8. Sf 16159 is of particular importance as it bears a 'laurel leaves' decoration with clear Graeco-Roman affinities.

Special find no: 1631 Context: 284nw
Stratigraphic Phase: CXV Weight: 4.86g
Dimensions: Under 1cm, approximately 14cm radius.
Comments: Slightly curved bowl fragment? Possibly has a pimple pattern under the corrosion.

Special find no: 2774 Context: 358se
Stratigraphic Phase: XCIII Weight: 98g
Dimensions: 26 x 6cm
Comments: A bowl in 64 significant pieces. The radius is about 6cm, 26 out of 38cm of the circumference survive. Five pieces have a design which cannot be made out. One piece appears to have a patch. It is so corroded and fragmentary that no overall design can be made out. The rim is rounded at the edge but not in any way bent to make a lip.

Special find no: 10147 Context: 634nw
Stratigraphic Phase: LXIX Weight: 0.47g
Dimensions: 2.8cm
Comments: Rim piece of a vessel, approximately 2.8cm or 17% of the circumference survives. It was angled at 70° to the horizontal.

Special find no: 16159 Context: 729sw
Stratigraphic Phase: LIII Weight: 11.92g
Dimensions: The radius of the bowl was 5.5cm and approximately 11% of the rim survives.
Comments: Rim fragment of bowl? The rim is decorated on one side with 'laurel leaves'; there is a heavy iron stain on the other side as if the bowl were of iron.
[Fig. 3.4]

3.3.6 Petal decoration

This fragment is a single example of what may have been an inlaid or applied decorative plaque on a wooden box

or chest. It was recovered from within old land surface 601.

Special find no: 10108 Context: 601
Stratigraphic Phase: LXXII Weight: 5g
Dimensions:
Comments: Disc like a flower face with twelve petals. Each petal has a ridge all around, quite corroded. No visible marks from a join on the back; it is in two pieces which have been joined.
[Plate 3.4; Fig. 3.5]

3.3.7 Mirror

Although this is only a fragment, it seems likely that it represents part of a mirror. It consists of a rounded copper-alloy bar joined onto the back of a rounded copper-alloy sheet. It falls into Leshnik's Category VII Type A tanged circular mirror and has parallels at Taxila and also at Adichanallur (Leshnik 1974: 186). Leshnik suggests that it may be dated to the centuries bracketing the turn of the era and that Marshall favoured a Western origin (ibid.). It was recovered from within foundation 616.

Special find no: 15086 Context: 616se
Stratigraphic Phase: LXX Weight: 5g
Dimensions: Internal diameter is 1cm, external 2cm.
Comments: Incomplete mirror? Semi-circular C shape with a broken sheet on the inside.
[Plate 3.5; Fig. 3.5]

3.3.8 Stupa umbrella

The full identification of this object is extremely difficult. It consists of three discs evenly spaced around a circular bar. It may represent the umbrella of a votive stupa (*chatravaliya*) or perhaps even a handle designed to be inlaid with bone or antler. It was recovered from phase G2 pit 636.

Special find no: 10137 Context: 634nw
Stratigraphic Phase: LXIX Weight: 5g
Dimensions: 5.5cm long and 2.5cm diameter.
Comments: Handle (inlay missing?) or votive stupa umbrella. Circular cross-section bar with three discs around it, evenly spaced. The bar protrudes at one end. Some corrosion is visible.
[Plate 3.6; Fig. 3.5]

3.3.9 Nails

Two copper-alloy nails were recovered from period I at ASW2. It is assumed that they had a decorative, rather than a structural function. Two copper-alloy nails were also recovered during the excavations at Building A (Paranavitana 1936: 10).

Special find no: 10498 Context: 977ne
Stratigraphic Phase: XXVIII Weight: 4.27g
Dimensions: 3.2cm long and the head is 1cm in diameter.
Comments: Complete round-headed nail.
[Fig. 3.5]

Special find no: 16833 Context: 977
Stratigraphic Phase: XXVIII Weight: 5g
Dimensions: 3.8cm long.
Comments: Bar, possibly nail. Uncertain cross-section.

3.3.10 Pin, or possibly stylus

A single pin, formed out of a wire length, was recovered from one of the pillar supports of the period F structure.

Two similar slender copper-alloy objects, identified as pins, were recovered from Pomparippu (Begley 1981: 81). One had a rounded section and tapered to a point at one end and a serrated fan shape at the other, while the other object also tapered to a point at one end and a triangle at the other (*ibid.*).

Special find no: 472 Context: 158nw
Stratigraphic Phase: XCV Weight: 0.5g
Dimensions: 6cm long and 0.2cm diameter.
Comments: Wire piece, possibly a pin?

3.3.11 Wire pieces

Twelve lengths of copper-alloy wire were recovered from the trench between periods F and J. Sf 2994 was recovered from the foundations of the pillared hall; sfs 6464 and 5282 from the collapse of the phase G5 structure; sfs 15030 and 8113 from the foundations of structural phase G4; sf 15868 from phase I8 pit fill 714; sf 10269 from period I old land surface 729; sfs 10326 and 16543 from period I old land surfaces 837 and 850; sf 10655 from phase J4 well fill 1292; sf 10673 from phase J3 pit fill 1382; and sf 10689 from period J old land surface 1496. A similar 6.5cm long fragment of copper-alloy wire was recovered from Stratum 3A of the Anuradhapura Gedige site (Deraniyagala 1972: 145), which has been dated chronometrically to either between the eighth and fifth centuries BC or between the fourth and second centuries BC (*idem* 1992: 717–18).

Special find no: 2994 Context: 365nw
Stratigraphic Phase: XCII Weight: 0.28g
Dimensions: 2cm long and 0.2cm diameter.

Special find no: 6464 Context: 416ne
Stratigraphic Phase: XCI Weight: 2.81g
Dimensions: 5.2 x 0.2 x 0.2cm
Comments: Circular cross-section bar.

Special find no: 5282 Context: 376nw
Stratigraphic Phase: LXXXVI Weight: 1.44g
Dimensions: 2.6 x 0.2 x 0.2cm
Comments: Square cross-section. Diagonal cuts on both ends.

Special find no: 15030 Context: 605ne
Stratigraphic Phase: LXXXIII Weight: 0.8g
Dimensions: 0.4cm diameter.

Special find no: 8113 Context: 495
Stratigraphic Phase: LXXX Weight: 5.66g
Dimensions: 0.4cm diameter.

Special find no: 15868 Context: 714se
Stratigraphic Phase: LIV Weight: 0.15g
Dimensions: 0.1cm diameter.

Special find no: 10269 Context: 729nw
Stratigraphic Phase: LIII Weight: 0.52g
Dimensions: 0.2cm diameter.

Special find no: 10326 Context: 837nw
Stratigraphic Phase: XXXV Weight: 10.53g
Dimensions: Irregular 0.3–0.4cm diameter.

Special find no: 16543 Context: 850ne
Stratigraphic Phase: XL Weight: 1.76g
Dimensions: 0.2cm diameter.

Special find no: 10655 Context: 1292se
Stratigraphic Phase: XIX Weight: 14.02g
Dimensions: 0.3cm diameter.

Special find no: 10673 Context: 1382nw
Stratigraphic Phase: XVII Weight: 15.11g
Dimensions: 0.4cm diameter.

Special find no: 10689 Context: 1496se
Stratigraphic Phase: XII Weight: 8.2g
Dimensions: 15.6 x 0.2 x 0.2cm.

3.3.12 Sheet fittings

Thirty fragments of sheet fittings were found at ASW2 during periods B to J. Some may well have been part of composite objects or small tools manufactured from sheets, however their current state makes their function impossible to assess. While some of the sheets were undoubtedly decorative, the majority of the fragments were formless. Some pieces have small rivet holes and may have been attached to leather or wood, some may have been part of vessels and others C-sectioned bindings. It is also possible that some of the very small fragments of thin sheet may represent broken coins.

Special find no: 389 Context: 5
Stratigraphic Phase: CXII Weight: 0.1g
Comments: Rolled sheet object – handle?
[Fig. 3.5]

Special find no: 63 Context: 14
Stratigraphic Phase: CII Weight: 0.1g
Comments: Very small; bent into shallow C.

Special find no: 630 Context: 56
Stratigraphic Phase: XCV Weight: 0.1g
Comments: Very small.

Special find no: 2001 Context: 56
Stratigraphic Phase: CXV Weight: 0.5g
Comments: Very corroded.

Special find no: 2833 Context: 373nw
Stratigraphic Phase: CXV Weight: 6g
Comments: Very corroded strip, unsure if edges are deliberate. One is definitely not.

Special find no: 5446 Context: 73sw
Stratigraphic Phase: XCIII Weight: 4.8g
Comments: Incomplete sheet, two sides are deliberately folded back. The folded piece is cut to an unusual pointed shape.

Special find no: 5984 Context: 304
Stratigraphic Phase: XCIII Weight: 4g

Special find no: 6797 Context: 444ne
Stratigraphic Phase: LXXXVII Weight: 0.54g
Comments: Two sheet, no original edges.

Special find no: 15114 Context: 605
Stratigraphic Phase: LXXXIII Weight: 2g

Special find no: 25002 Context: 469
Stratigraphic Phase: LXXXI Weight: 4.75g
Comments: Sheet with intentional edges tapers, with a possible rivet at one end.

Special find no: 6916 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 8.03g
Comments: Four small sheets.

Special find no: 6999 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 9.23g
Comments: Small sheet.

Special find no: 15090 Context: 630
Stratigraphic Phase: LXXVI Weight: 3.7g
Comments: Small sheet without edges.

Special find no: 15684 Context: 659
Stratigraphic Phase: LXXII Weight: 6g

Special find no: 10101 Context: 601
Stratigraphic Phase: LXXII Weight: 2.5g

Special find no: 15065 Context: 601
Stratigraphic Phase: LXXII Weight: 2.58g

Special find no: 15027 Context: 602
Stratigraphic Phase: LXXII Weight: 4.5g
Comments: Rectangular sheets.

Special find no: 15987 Context: 607
Stratigraphic Phase: LXXI Weight: 2.1g
Comments: Two sheets.

Special find no: 10081 Context: 616
Stratigraphic Phase: LXX Weight: 4g
Comments: Triangular sheet with two cut edges.

Special find no: 15103 Context: 615
Stratigraphic Phase: LXVIII Weight: 3g
Comments: Very corroded.

Special find no: 15104 Context: 615
Stratigraphic Phase: LXVIII Weight: 3g
Comments: Very corroded.

Special find no: 15105 Context: 615
Stratigraphic Phase: LXVIII Weight: 2g
Comments: Small sheet without edges.

Special find no: 10175 Context: 675ae
Stratigraphic Phase: LXVII Weight: 1.64g
Comments: Three layers of sheet.

Special find no: 15803 Context: 714se
Stratigraphic Phase: LIV Weight: 0.64g
Comments: Small sheet without edges.

Special find no: 10315 Context: 834se
Stratigraphic Phase: XXXVII Weight: 5.14g
Comments: Very corroded complete sheet.

Special find no: 10565 Context: 977
Stratigraphic Phase: XXVIII Weight: 14.95g
Comments: Incomplete rectangular sheet with circular hole punched at one end.

Special find no: 10572 Context: 977
Stratigraphic Phase: XXVIII Weight: 6.45g
Comments: Fragmentary rectangular sheet.

Special find no: 17062 Context: 977nw
Stratigraphic Phase: XXVIII Weight: 2.54g
Comments: Fragmentary rectangular sheet.

Special find no: 10621 Context: 1172se
Stratigraphic Phase: XXII Weight: 0.37g
Comments: Thick, triangular sheet.

Special find no: 10688 Context: 1496nw
Stratigraphic Phase: XII Weight: 1.84g
Comments: Very corroded sheet without edges.

3.3.13 Bars

Twenty-eight copper-alloy bars were recovered from the trench and they represent the heaviest category of identified copper-alloy object. Some of the artefacts below may well have been part of composite objects or

small tools manufactured from bars, however their current state makes their function impossible to assess.

Special find no: 2328 Context: 325ne
Stratigraphic Phase: XCV Weight: 0.87g
Dimensions: 2.2 x 0.3cm
Comments: Bent to L shape.

Special find no: 5989 Context: 327ne
Stratigraphic Phase: XCV Weight: 6.46g
Dimensions: 2.8 x 4cm – too corroded for thickness.
Comments: Two bars.

Special find no: 2731 Context: 368nw
Stratigraphic Phase: XCV Weight: 1.48g
Dimensions: 3.3cm long and 0.7cm wide.
Comments: Bar loop at one end.

Special find no: 2995 Context: 365nw
Stratigraphic Phase: XCII Weight: 0.47g
Dimensions: 1.8 x 0.3cm
Comments: Bar tapers slightly.

Special find no: 6077 Context: 325nw
Stratigraphic Phase: XCII Weight: 20.84g
Dimensions: 4 x 0.3 x 2.2 x 0.8cm
Comments: Triangular bar.

Special find no: 2905 Context: 367sw
Stratigraphic Phase: XCII Weight: 4.4g
Dimensions: 2cm long and 0.8cm diameter.
Comments: Rounded bar.

Special find no: 6366 Context: 409nw
Stratigraphic Phase: LXXXVIII Weight: 3.69g
Dimensions: 2.2, 2 and 1.6cm long.
Comments: Three bars.

Special find no: 16168 Context: 450nw
Stratigraphic Phase: LXXXVII Weight: 10.68g
Dimensions: 0.7cm diameter.
Comments: Incomplete bar with circular cross-section.

Special find no: 10154 Context: 605nw
Stratigraphic Phase: LXXXIII Weight: 69.01g
Dimensions: 5.71 x 2.92cm
Comments: Very corroded

Special find no: 15022 Context: 605
Stratigraphic Phase: LXXXIII Weight: 15g
Comments: L-shaped bar, square cross-section, one branch is broken, the bar tapers.

Special find no: 6979 Context: 467nw
Stratigraphic Phase: LXXXI Weight: 4.05g
Dimensions: 2.3 x 1 x 0.6cm
Comments: Bar with red bead in corrosion.

Special find no: 15101 Context: 615
Stratigraphic Phase: LXVIII Weight: 3g
Dimensions: 2.2 x 0.3cm
Comments: Small rectangular bar.

Special find no: 16791 Context: 964
Stratigraphic Phase: XXXII Weight: 5.76g
Dimensions:
Comments: Bar in six pieces. Very corroded.

Special find no: 16768 Context: 997nw
Stratigraphic Phase: XXXI Weight: 9.72g
Dimensions: 1.2 x 1.7 x 1cm.
Comments: Squarish corroded bar.

Special find no: 10451 Context: 961se
Stratigraphic Phase: XXX Weight: 4.44g
Dimensions: 4.51cm
Comments: L-shaped bar with circular cross-section. Fresh breaks at both corners. Deliberate corners.

Special find no: 10454
Stratigraphic Phase: XXX
Dimensions: 4.5cm
Comments: Bar in four pieces.

Context: 961nw
Weight: 14.01g

Special find no: 10455
Stratigraphic Phase: XXX
Dimensions: 2.3 x 0.8 x 0.3cm
Comments: Bar tapers slightly and joins to bar 16749.

Context: 961sw
Weight: 5.02g

Special find no: 16749
Stratigraphic Phase: XXX
Dimensions: 5.95cm
Comments: Bar joins to tapering bar 10455. Complete object is T-shaped.

Context: 961se
Weight: 42.39g

Special find no: 16836
Stratigraphic Phase: XXX
Dimensions: 1.8cm long and 0.3cm wide.

Context: 961nw
Weight: 1.52g

Special find no: 10376
Stratigraphic Phase: XXX
Dimensions: 5.5cm long and 0.8cm wide in the centre.
Comments: Very corroded bar, tapers at the ends.

Context: 962nw
Weight: 138.98g

Special find no: 10516
Stratigraphic Phase: XXVIII
Dimensions: Cross-section 0.4–0.5cm.
Comments: Incomplete fresh break. Circular cross-section, possible textile pseudomorph.

Context: 977
Weight: 4.2g

Special find no: 16793
Stratigraphic Phase: XXVIII
Dimensions: 2.2 x 0.8 x 1cm.
Comments: Bar fragment, square cross-section.

Context: 977
Weight: 4.52g

Special find no: 16839
Stratigraphic Phase: XXVIII
Dimensions: 1.5 x 1 x 1cm.
Comments: Very corroded. Square cross-section.

Context: 977ne
Weight: 4.84g

Special find no: 10467
Stratigraphic Phase: XXVII
Comments: Four bars of differing sizes. Round cross-sections.

Context: 977ne
Weight: 67.13g

Special find no: 10501
Stratigraphic Phase: XXVII
Dimensions: 3 x 1.3 x 1.5cm
Comments: Bar slightly curved. Uncertain cross-section.

Context: 977
Weight: 4.56g

Special find no: 10609
Stratigraphic Phase: XXIV
Dimensions: 3cm long and 0.3cm diameter.
Comments: Bar two pieces, very corroded. Round cross-section.

Context: 1128se
Weight: 8.66g

Special find no: 10627
Stratigraphic Phase: XXIII
Dimensions: 2.5 x 1.5 x 1cm.
Comments: Bar, rounded in one dimension at one end, square cross-section.

Context: 1125se
Weight: 13.18g

3.3.14 Unidentified objects

This category contains artefacts the exact classification of which is uncertain. It includes modified and composite bars and sheets.

Special find no: 2944
Stratigraphic Phase: XCIII
Comments: White-metalled copper-alloy object.

Context: 304ne
Weight: 3.14g

Special find no: 2840
Stratigraphic Phase: XCII
Comments: Decorated strip. The decoration is punched and of several lines. The first line was later cut along the line. The second line is complete. The third line was probably corrected as it has a shallow Y shape, one branch of which is short. The fourth line has

Context: 364ne
Weight: 3.5g

been cut across later. It was a decorated piece that was later cut up for re-use.
[Plate 3.6]

Special find no: 5456
Stratigraphic Phase: XCII
Dimensions: 2cm long, 1.1 and 0.9cm in diameter. The sheet is 0.1cm thick and the strips are 0.3cm wide and 0.1cm thick.
Comments: Cylinder made with a bent sheet, with some overlap, amount not determinable. Four strips were wrapped around it. There is no surviving evidence of a weld and only two of the strips survive – there is otherwise completion.

Context: 389
Weight: 4.45g

Special find no: 6660
Stratigraphic Phase: XCI
Dimensions: 1.6 x 1.7cm. The sheet is 0.2cm thick.
Comments: Thick sheet bent to be concave/convex. One corner is sharp. It looks like a cushion or oil lamp?

Context: 416
Weight: 5.5g

Special find no: 25020
Stratigraphic Phase: XCI
Dimensions: 0.5 x 0.6 x 0.1cm
Comments: Washer? A small square sheet with a central circular hole of 0.2cm. Ridge around hole from fabricator.

Context: 426
Weight: 2g

Special find no: 4120
Stratigraphic Phase: LXXXVI
Comments: Tube, broken at one end, rounded in the middle and flared at end.

Context: 376
Weight: 4.5g

Special find no: 5942
Stratigraphic Phase: LXXXI
Dimensions: 2cm long and 0.5cm diameter.
Comments: Bar with circular cross-section. Slightly bent, was probably joined to something at either end.

Context: 470
Weight: 3.7g

Special find no: 15685
Stratigraphic Phase: LXIV
Dimensions: It is 2.4–2.7cm in diameter, the hole is 1.2cm in diameter and the sheet is 0.2cm thick.
Comments: Disc with a hole in the middle. The edge of the hole was attached to a cylinder, but it has broken close to the disc. A weld line is visible on the inside of the cylinder. Possibly vessel foot or rim.

Context: 670
Weight: 7.5g

Special find no: 16902
Stratigraphic Phase: XXXVI
Dimensions: 3.76 x 0.74cm
Comments: Tube, very corroded. Breaks at either end. There are two circular holes at right angles. They do not continue through to the other side.

Context: 1106ne
Weight: 3.02g

Special find no: 16751
Stratigraphic Phase: XXX
Dimensions: 1.28 x 0.5cm

Context: 961ne
Weight: 2.6g

3.3.15 Unidentified fragments

The following objects were so badly fragmented or corroded that no function of the piece can be determined.

Special find no: 59
Stratigraphic Phase: CX
Context: 19sw
Weight: 0.82g

Special find no: 38
Stratigraphic Phase: CVI
Context: 9
Weight: 6.5g

Special find no: 659
Stratigraphic Phase: XCIX
Context: 187
Weight: 4g

Special find no: 134
Stratigraphic Phase: XCVI
Context: 43
Weight: 0.2g

Special find no: 420
Stratigraphic Phase: XCV
Context: 141
Weight: 0.1g

Special find no: 1582
Stratigraphic Phase: XCV
Context: 263nw
Weight: 1.01g

Anuradhapura: The Artefacts

Special find no: 2330 Stratigraphic Phase: XCV	Context: 325ne Weight: 0.98g	Special find no: 6769 Stratigraphic Phase: LXXXVII	Context: 437ne Weight: 1.87g
Special find no: 6114 Stratigraphic Phase: XCV	Context: 326 Weight: 2g	Special find no: 16169 Stratigraphic Phase: LXXXVII	Context: 450nw Weight: 14.06g
Special find no: 6117 Stratigraphic Phase: XCV	Context: 326 Weight: 0.1g	Special find no: 6778 Stratigraphic Phase: LXXXVI	Context: 457sw Weight: 0.94g
Special find no: 6121 Stratigraphic Phase: XCV	Context: 326 Weight: 0.15g	Special find no: 15986 Stratigraphic Phase: LXXXIV	Context: 693 Weight: 0.97g
Special find no: 2413 Stratigraphic Phase: XCV	Context: 373nw Weight: 2g	Special find no: 10023 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 2g
Special find no: 2814 Stratigraphic Phase: XCV Comments: unidentified fragment with wood pseudomorph.	Context: 373nw Weight: 4.5g	Special find no: 15020 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 2g
Special find no: 6354 Stratigraphic Phase: XCV	Context: 401 Weight: 3g	Special find no: 15021 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 6.5g
Special find no: 15983 Stratigraphic Phase: XCV	Context: 600 Weight: 0.06g	Special find no: 15028 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 19.5g
Special find no: 2060 Stratigraphic Phase: XCIII	Context: 304ne Weight: 4g	Special find no: 15029 Stratigraphic Phase: LXXXIII	Context: 605ne Weight: 1.26g
Special find no: 2061 Stratigraphic Phase: XCIII	Context: 304ne Weight: 3.5g	Special find no: 15109 Stratigraphic Phase: LXXXIII	Context: 605nw Weight: 164.3g
Special find no: 5977 Stratigraphic Phase: XCIII	Context: 304 Weight: 2g	Special find no: 15112 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 2.65g
Special find no: 5986 Stratigraphic Phase: XCIII	Context: 304 Weight: 1g	Special find no: 15113 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 4.5g
Special find no: 5151 Stratigraphic Phase: XCIII	Context: 370 Weight: 0.2g	Special find no: 15119 Stratigraphic Phase: LXXXIII	Context: 605 Weight: 5.5g
Special find no: 2793 Stratigraphic Phase: XCII	Context: 365nw Weight: 3.5g	Special find no: 15118 Stratigraphic Phase: LXXXIII	Context: 632ne Weight: 2.87g
Special find no: 6132 Stratigraphic Phase: XCII	Context: 366 Weight: 3.5g	Special find no: 25003 Stratigraphic Phase: LXXXI	Context: 469 Weight: 2.5g
Special find no: 2748 Stratigraphic Phase: XCII	Context: 371nw Weight: 3g	Special find no: 25004 Stratigraphic Phase: LXXXI	Context: 469 Weight: 2.5g
Special find no: 6305 Stratigraphic Phase: XCI	Context: 385se Weight: 2.51g	Special find no: 6922 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 7.56g
Special find no: 6291 Stratigraphic Phase: XCI	Context: 386 Weight: 0.18g	Special find no: 6950 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 5.3g
Special find no: 6571 Stratigraphic Phase: XCI	Context: 417 Weight: 4g	Special find no: 6960 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 3.46g
Special find no: 6527 Stratigraphic Phase: XCI	Context: 420 Weight: 7.5g	Special find no: 6970 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 1.07g
Special find no: 6560 Stratigraphic Phase: XCI	Context: 425 Weight: 2.5g	Special find no: 7001 Stratigraphic Phase: LXXXI	Context: 487ne Weight: 3.35g
Special find no: 6597 Stratigraphic Phase: XCI	Context: 425 Weight: 3g	Special find no: 7101 Stratigraphic Phase: LXXX	Context: 495 Weight: 2g
Special find no: 6705 Stratigraphic Phase: XCI	Context: 425 Weight: 4.1g	Special find no: 7104 Stratigraphic Phase: LXXX	Context: 495 Weight: 1g
Special find no: 6518 Stratigraphic Phase: LXXXVIII	Context: 409nw Weight: 3.73g	Special find no: 7230 Stratigraphic Phase: LXXVI	Context: 501ne Weight: 11.18g
Special find no: 6635 Stratigraphic Phase: LXXXVIII	Context: 409 Weight: 3	Special find no: 8470 Stratigraphic Phase: LXXVI	Context: 506 Weight: 3.5g
Special find no: 6602 Stratigraphic Phase: LXXXVIII	Context: 426 Weight: 3g	Special find no: 15089 Stratigraphic Phase: LXXVI	Context: 630 Weight: 3g

Metal Objects

Special find no: 15092 Stratigraphic Phase: LXXVI	Context: 630 Weight: 2g	Special find no: 15985 Stratigraphic Phase: LXVI	Context: 663nw Weight: 1.22g
Special find no: 15094 Stratigraphic Phase: LXXVI	Context: 630 Weight: 3g	Special find no: 16166 Stratigraphic Phase: LXVI	Context: 663nw Weight: 0.77g
Special find no: 15095 Stratigraphic Phase: LXXVI	Context: 630 Weight: 3.2g	Special find no: 15648 Stratigraphic Phase: LXIV	Context: 670sw Weight: 26.06g
Special find no: 15096 Stratigraphic Phase: LXXVI	Context: 630 Weight: 3g	Special find no: 15650 Stratigraphic Phase: LXIV	Context: 670sw Weight: 1.37g
Special find no: 15097 Stratigraphic Phase: LXXVI	Context: 630 Weight: 2.5g	Special find no: 10225 Stratigraphic Phase: LXIV	Context: 698nw Weight: 6.1g
Special find no: 15098 Stratigraphic Phase: LXXVI	Context: 630 Weight: 1g	Special find no: 15805 Stratigraphic Phase: LIV	Context: 707se Weight: 0.28g
Special find no: 15099 Stratigraphic Phase: LXXVI	Context: 630 Weight: 1.5g	Special find no: 10233 Stratigraphic Phase: LIV	Context: 714se Weight: 1.09g
Special find no: 6971 Stratigraphic Phase: LXXV	Context: 489 Weight: 2.5g	Special find no: 10273 Stratigraphic Phase: LIII	Context: 729sw Weight: 0.07g
Special find no: 25007 Stratigraphic Phase: LXXV	Context: 489 Weight: 3.5g	Special find no: 10321 Stratigraphic Phase: XXXVIII	Context: 888sw Weight: 28.66g
Special find no: 7174 Stratigraphic Phase: LXXV	Context: 492se Weight: 25.54g	Special find no: 10325 Stratigraphic Phase: XXXV	Context: 837sw Weight: 14.97g
Special find no: 7216 Stratigraphic Phase: LXXV	Context: 492 Weight: 2g	Special find no: 10382 Stratigraphic Phase: XXXI	Context: 975sw Weight: 0.16g
Special find no: 25005 Stratigraphic Phase: LXXV	Context: 492 Weight: 5.5g	Special find no: 10527 Stratigraphic Phase: XXXI	Context: 997nw Weight: 3.2g
Special find no: 25006 Stratigraphic Phase: LXXV	Context: 492 Weight: 1g	Special find no: 10415 Stratigraphic Phase: XXX	Context: 961se Weight: 2.61g
Special find no: 7097 Stratigraphic Phase: LXXV	Context: 494 Weight: 4.7g	Special find no: 10432 Stratigraphic Phase: XXX	Context: 961se Weight: 1.32g
Special find no: 10159 Stratigraphic Phase: LXXIII	Context: 635nw Weight: 0.68g	Special find no: 16835 Stratigraphic Phase: XXX	Context: 961nw Weight: 2.15g
Special find no: 15640 Stratigraphic Phase: LXXIII	Context: 635 Weight: 1.22g	Special find no: 10525 Stratigraphic Phase: XXVIII Comments: Unidentified fragment with wood pseudomorph.	Context: 977ne Weight: 116.97g
Special find no: 15031 Stratigraphic Phase: LXXII	Context: 601sw Weight: 0.78g	Special find no: 16767 Stratigraphic Phase: XXVIII	Context: 977nw Weight: 3.45g
Special find no: 15068 Stratigraphic Phase: LXXII	Context: 601 Weight: 0.51g	Special find no: 16794 Stratigraphic Phase: XXVIII	Context: 977 Weight: 4.56g
Special find no: 15984 Stratigraphic Phase: LXXII	Context: 602 Weight: 0.64g	Special find no: 16825 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 36.1g
Special find no: 15110 Stratigraphic Phase: LXXII	Context: 643 Weight: 4g	Special find no: 16834 Stratigraphic Phase: XXVIII	Context: 977se Weight: 2.38g
Special find no: 10059 Stratigraphic Phase: LXXI	Context: 607 Weight: 2g	Special find no: 16838 Stratigraphic Phase: XXVIII	Context: 977ne Weight: 16.14g
Special find no: 15087 Stratigraphic Phase: LXX	Context: 616 Weight: 2.5g	Special find no: 17270 Stratigraphic Phase: XXVII	Context: 1115ne Weight: 13.91
Special find no: 15019 Stratigraphic Phase: LXIX	Context: 610 Weight: 3.5g	Special find no: 10581 Stratigraphic Phase: XXVI	Context: 1101sw Weight: 2.39g
Special find no: 15102 Stratigraphic Phase: LXVIII	Context: 615 Weight: 5.5g	Special find no: 16901 Stratigraphic Phase: XXVI	Context: 1101ne Weight: 0.4g
Special find no: 15637 Stratigraphic Phase: LXVIII	Context: 615 Weight: 0.2g	Special find no: 17063 Stratigraphic Phase: XXVI	Context: 1101sw Weight: 1.03g
Special find no: 15635 Stratigraphic Phase: LXVI	Context: 663nw Weight: 2.52g	Special find no: 10621 Stratigraphic Phase: XXII	Context: 1172se Weight: 0.37g

Special find no: 10316	Context: 1174
Stratigraphic Phase: XX	Weight: 5.4g
Special find no: 10614	Context: 1175sw
Stratigraphic Phase: XVIII	Weight: 0.6g
Special find no: 17315	Context: 1175se
Stratigraphic Phase: XVIII	Weight: 0.39g

3.4 Gold objects

Only five small fragments of gold were recovered from ASW2 (see Table 3.4). Two were unidentifiable foil fragments, while the remaining three were glass or stone beads wrapped in foil. It is very notable that all the fragments or objects of gold were recovered from the younger part of the sequence. Sf 283 was recovered from old land surface 25 (stratigraphic phase XCVII); sf 673 was recovered from the fills of the robber pits of stratigraphic phase XCV; and sfs 5130, 2795 and 2830 were recovered from the foundations of three of the pillar supports of the classic Anuradhapura-period pillared hall. While the first two finds may well have been re-deposited through the actions of the robber pitting phase, it is probable that sfs 5130, 2795 and 2830 represent part of the votive deposits of the pillared hall.

This small count appears to be similar to the results from the Gedige trench, where a single fragment of foil was identified (Deraniyagala 1972: 143), again dated to the first half of the first millennium AD (ibid.: 160). A single fragment of gold foil was also recovered from the excavations at the Mahapali (Paranavitana 1936: 33). A single fragment of gold leaf and a convex hexagonal gold bead were recovered from period II (Megalithic culture 200 BC-AD 0) at Maski (Thapar 1957: 119), while 30 long cylinder, circular gold beads and 3 disc cylinder, circular gold beads were found in Megalith IX (Wheeler 1948: 264) and part of a gold bangle in Andhra levels at the town site at Brahmagiri (ibid.: 263). A small fragment of gold was also recovered from the underground water conduit site at Sigiriya (Bandaranayake 1989: 59). These latter deposits mainly date to the Kassapan occupation. Beads of gold have also been reported from the megalithic cemetery at Ibbankatuwa, Dambulla (Deraniyagala, pers. comm.).

Special find no: 283 Context: 25
Stratigraphic Phase: XCVII Weight: 5g
Dimensions: 0.2 x 0.2 x 0.3cm
Comments: Gold foil over circular stone bead.

Special find no: 673 Context: 188
Stratigraphic Phase: XCV Weight: 5g
Comments: Fragment of gold foil.

Special find no: 5130 Context: 304
Stratigraphic Phase: XCIII Weight: 5g
Comments: Gold foil on glass?

Special find no: 2830 Context: 358se
Stratigraphic Phase: XCIII Weight: 5g
Comments: Two fragments of gold foil.

Special find no: 2795 Context: 369se
Stratigraphic Phase: XCIII Weight: 2.5g
Dimensions: 0.2 x 0.2 x 0.3cm
Comments: Oval gold bead with copper corrosion from copper-alloy square that corroded next to it.

3.5 Lead objects

As is clear from Table 3.5, only six objects of lead were recovered from ASW2. With the exception of a single fragment from period A, all the objects were found in period G. Very little lead has been previously recovered from the Citadel. Indeed only a single fragment, possibly of a weight, was found during Paranavitana's excavations at the Anuradhapura-period structures at Building A, between the Gedige and Mahapali (Paranavitana 1936: 10).

3.5.1 Rolled strips

Three tightly rolled lead strips were recovered from the excavation, all within the middle phases of structural period G. Sfs 6908 and 7006 were excavated in old land surface 467-487-470, which had been deposited during stratigraphic phase LXXXI, while sf 7240 was found within limestone paving 509 which had been laid during stratigraphic phase LXXVI. All three may be dated to between the first century BC and the first century AD. Initially we hypothesized, as they had the same dimensions as palm ola leaves, that they might bear inscriptions. This hypothesis was refuted upon investigation. Their purpose is unclear and they may represent nothing more than rolled strips of lead.

Special find no: 6908 Context: 467nw
Stratigraphic Phase: LXXXI Weight: 53.89g
Dimensions: 3.4 diameter, 0.05 sheet thickness and width of strip 2.7cm
Comments: Fragments of rolled-up lead strip (28 rotations). No inscriptions could be seen.
[Fig. 3.5]

Special find no: 7006 Context: 487ne
Stratigraphic Phase: LXXXI Weight: 0.93g
Comments: Fragments of rolled-up lead strip. No inscriptions could be seen.

Special find no: 7240 Context: 509sw
Stratigraphic Phase: LXXVI Weight: 27.14g
Dimensions: 2.1cm width
Comments: Fragments of rolled-up lead strip. No inscriptions could be seen.

3.5.2 Disc

A single thick, round disc of lead was recovered from period G levelling context 605. Its function is unclear.

Special find no: 15047 Context: 605ne
Stratigraphic Phase: LXXXIII Weight: 21.99g
Dimensions: 1.75 x 1.09cm
Comments: Thick, round disc.
[Fig. 3.5]

3.5.3 Sheets

This category contains artefacts which are objects the exact classification of which is uncertain. It includes modified and composite objects. The function of sf 1441 is unclear and it may just be an off-cut.

Special find no: 1441 Context: 13
Stratigraphic Phase: CXVII Weight: 55.68g
Dimensions: 9 x 9.8cm
Comments: Sheet broken at one end and one corner, impressed chessboard pattern over the rest, eight columns and at least nine rows.

Special find no: 16844 Context: 630
Stratigraphic Phase: LXXVI Weight: 4.04g
Dimensions: 1.87 x 0.62cm
Comments: Lead sheet working.

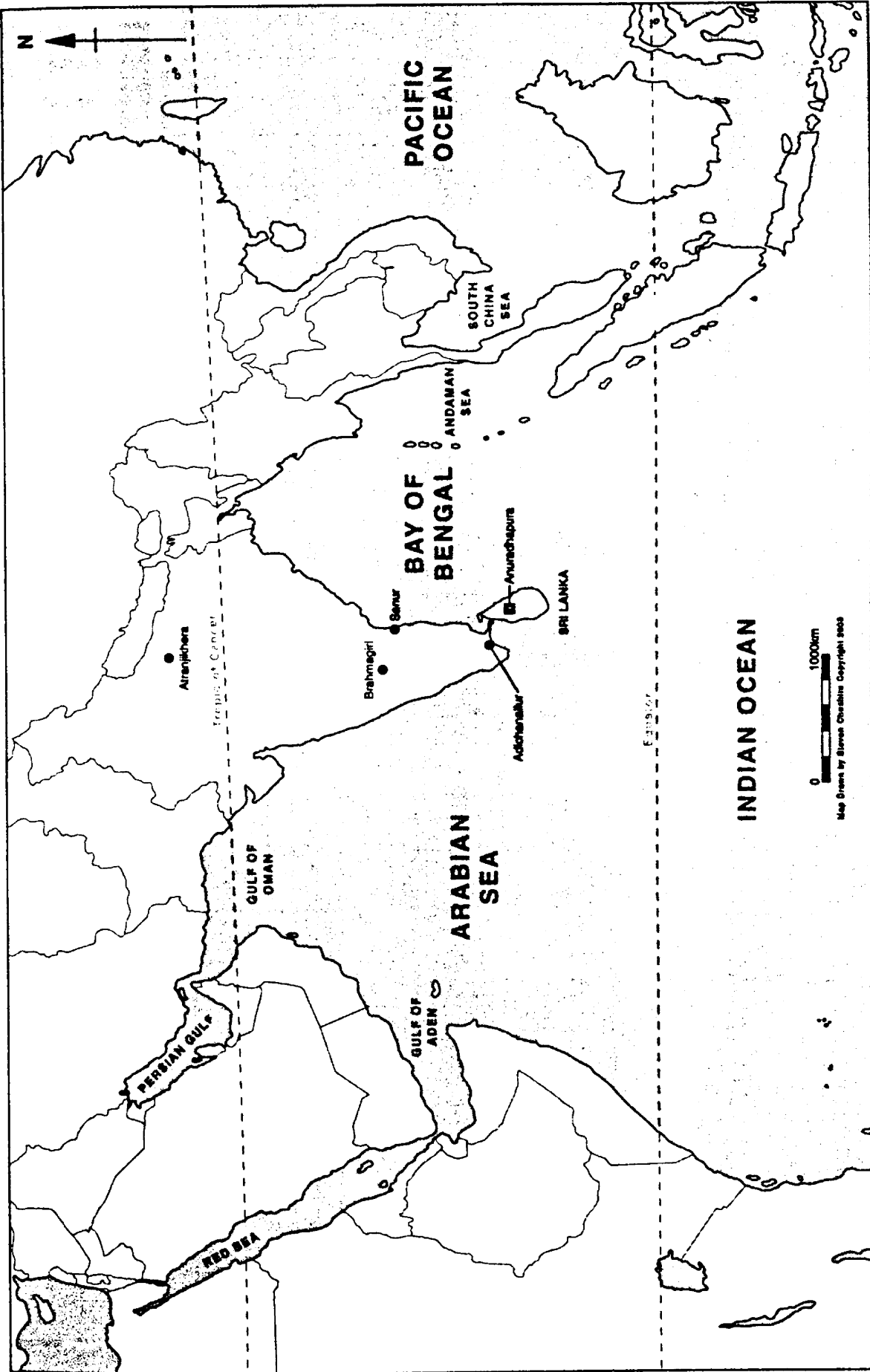
3.6 Discussion and conclusion

As pointed out in the introduction to this chapter (section 3.1), the iron and indeed the other metal artefacts of Iron Age and Early Historic peninsular India and Sri Lanka are remarkably homogeneous, so that a chronology cannot be based upon typology alone (Deraniyagala 1972: 155). We must add that, as many of the artefacts were found within levelling contexts, their exact stratigraphic origins are unclear. Furthermore the 943 metal objects were recovered from a single trench of 100 square metres in an enormous site of 100 hectares. Where possible we have cited parallel examples of artefact categories, however in most cases those parallels are themselves only relatively dated, thus further reducing the sharpness of the picture. For this reason we have decided to rely on the chronometric dating sequence presented in Volume I, Chapter 6: Dating the Sequence.

Although the early part of ASW2's occupation is parallel in date to the Iron Age 'megalithic' and urn cemeteries, it is interesting to note that most of the iron objects from the latter are very different in form to those from ASW2. At Sanur, for example, the spearheads had noticeably longer blades, measuring up to 100cm in length, and there were also hooked shafts, wedges or celts and daggers (Banerjee and Rajan 1959: 35–7). Similarly, the finds from Brahmagiri – the long-bladed spearheads, daggers, axe heads with iron bands, sickles and celts (Wheeler 1948: 254–60) – are not found at Anuradhapura. This difference may be due to a number of factors, including the possibility that different artefact categories were for use in different contexts. Seneviratne, for example, has pointed out that the typological range and number of metal objects found within 'megalithic' contexts are restricted in comparison to those from habitation sites where a "better produced, sophisticated and wider range of iron implements" is found (Seneviratne 1984: 272). However this is not the case for copper-alloy objects, as a fairly similar collection has been recovered, consisting of beads, bracelets, rods, pins,

bells and even seals (*ibid.*: 275). This is not to suggest that very different practices are occurring in habitation sites as opposed to burial sites. Indeed, as is developed below in Chapter 11: Human Remains, there is at least one pit which might be classified as Iron Age pit burials. Pit 1371 contained within its four fills (1372, 1382, 1404 and 1483), in addition to four ceramic vessels and a whetstone, four metal objects. These objects were an iron arrowhead (sf 10679), an iron bar (sf 17501), an unidentified iron object (sf 17485) and a length of copper-alloy wire (sf 10673), which possibly represents a bangle. In comparison with the paucity of metal in the urn burials at Pomparippu (Begley 1981: 67), this pit would represent a rich grave!

It is also interesting to note that, while one would expect an explosion of artefact categories occurring at the same time as the appearance in period I of rectangular or square structures and the earliest city defences (see Volume I, Chapter 4: The Fortifications), the majority of I's new artefact categories are structurally related with the appearance of iron collars and nails for example. The major explosion in categories occurs conversely in period G with the first examples of iron bracelets, iron needles, copper-alloy decorative plaques, copper-alloy kohl sticks, copper-alloy mirrors, copper-alloy nails, as well as the first lead objects. This expansion may be explainable by the increase in trade with the rest of the subcontinent and with kingdoms to the west, as indicated by the presence of imports such as Eastern Mediterranean glass (see Chapter 7: Glass Objects), and by locally made ceramics with Graeco-Roman inspired decorations, such as Rouletted ware and Arikamedu type 10 (see Chapter 6: Unglazed Ceramics). Clearly we are seeing a similar pattern within the metal objects. The presence of the copper-alloy mirror fragment (sf 15086), the copper-alloy bowl with 'laurel leaves' decoration (sf 16159), the iron tweezers (sf 17203), and perhaps even the iron saw blades (sfs 8259, 25001, 15063), corresponds to a number of forms which Marshall believed had strong Graeco-Roman affinities. Certainly the chronometric dates for period G (second century BC to second century AD) would make such stylistic, if not physical, links possible.



Map 5

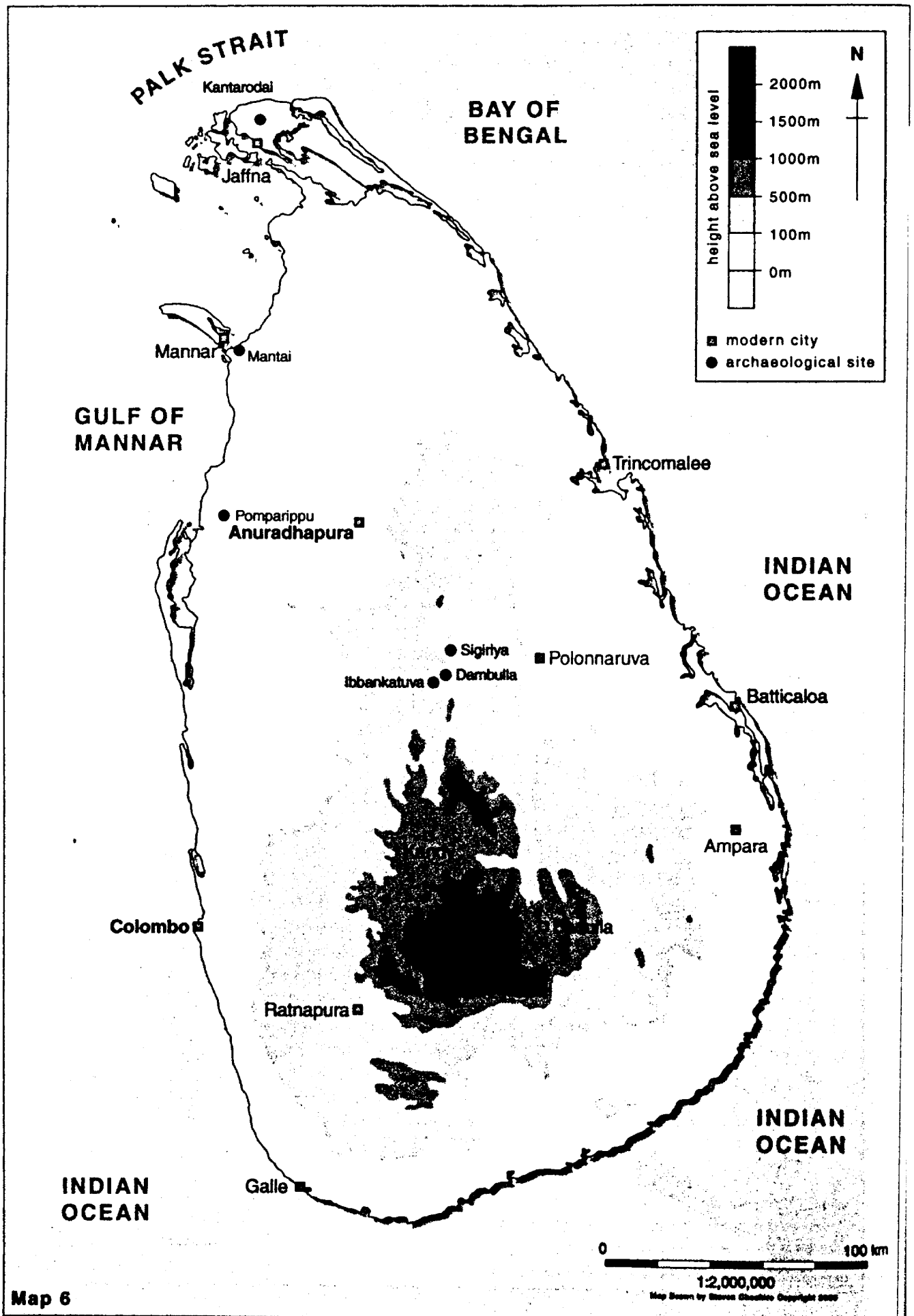


Table 3.1 Metal objects

Metal	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Iron	number	1	33	73	65	330	18	176	18	2	716
	weight (g)	30.27	388.97	1809.68	15530.06	15897.61	1295.37	6417.82	283.45	3.55	27679.78
Copper alloy	number		6	21	21	103	5	51	9		216
	weight (g)		11.72	58.59	169.33	615.74	47.53	664.24	46.3		1613.45
Gold	number		1	1	3						5
	weight (g)		5	5	12.5						22.5
Lead	number	1			5						6
	weight (g)	55.68			107.99						163.67
Total	number	2	40	95	94	433	23	227	27	2	943
	weight (g)	85.95	405.69	1873.27	1842.88	16513.35	1342.9	7082.06	329.75	3.55	29479.4

Table 3.2 Iron objects

Category	Period	A	B	C,D&E	F	G	H	I	J	K	Total
Arrowheads	number										
	weight (g)					1		1	1		3
Chains	number					15.62		10.09	17.62		43.33
	weight (g)							2			2
Saw blades	number							11.1			11.1
	weight (g)					3					3
Axes/adzes	number					71.4					71.4
	weight (g)					3	1				4
Spearheads	number					260.13	281.36				641.49
	weight (g)					1					1
Knifeblades	number					20.17					20.17
	weight (g)										
Wire	number										
	weight (g)										
Cleaverblades	number										
	weight (g)										
Needles	number										
	weight (g)										
Pins/styl	number										
	weight (g)										
Bracelets	number										
	weight (g)										
Tweezers	number										
	weight (g)										

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Other objects	number			3	3	11		9	1		27
	weight (g)			466.68	118.85	448.99		1573.33	67.1		2674.96
Collars	number					40	1	2			43
	weight (g)					3848.86	216.59	71.7			4137.16
Pipe	number					1					1
	weight (g)					1260					1260
Staple	number			1							1
	weight (g)			37.45							37.45
Bars	number		9	10	18	81	5	33	4		160
	weight (g)		130.24	233.29	498.53	4298.53	598.55	1433.07	29.78		7221.99
Sheet fittings	number		1	5	2	35	5	10			58
	weight (g)		29.29	74.88	84.72	1460.88	90.14	236.84			1976.76
Tapering nails	number		1	2	1	8		16			28
	weight (g)		8.47	50.18	26.56	208.52		538.98			832.71
T-shaped nails	number			3	3	9		17	1		33
	weight (g)			109.7	58.37	467.45		762.32	12.37		1410.21
Large head nails	number			1		2		2			5
	weight (g)			12.12		47.8		139.69			199.61
L-shaped nails	number		2	4	2	6					14
	weight (g)		30.62	48.23	29.05	221.59					329.49
Mushroom nails	number			1	1	4					6
	weight (g)			13.86	34.18	135.61					183.65
Nails/hafts/bars	number	1	15	33	33	79	4	43	2		210
	weight (g)	30.27	182.14	520.29	617.53	1696.32	82.06	909.31	13.68		4051.6
Unidentified	number		3	6		34	2	38	8	2	93
	weight (g)		6.34	211.77		516.25	26.67	699.6	75.8	3.55	1639.98

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Total	number	1	33	73	66	330	18	176	18	2	716
	weight (g)	30.27	388.97	1809.68	1553.06	15897.6	1295.37	6417.82	283.45	3.55	27679.78
						1					

Table 3.3 Copper alloy objects

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Bells	number			1	1	1					3
	weight (g)			2.47	2.7	2.35					7.52
Kohl stick	number					3					3
	weight (g)					10.05					10.05
Stamp seal	number				1						1
	weight (g)				5						5
Rings	number			1	3	1	1	2			8
	weight (g)			0.61	18.36	0.62	6.5	13.98			40.07
Vessels	number			1	1	1		1			4
	weight (g)			4.86	98	0.47		11.92			115.25
Petal decoration	number					1					1
	weight (g)					5					5
Mirror	number					1					1
	weight (g)					5					5
Stupa umbrellas	number					1					1
	weight (g)					5					5
Nails	number							2			2
	weight (g)							9.27			9.27
Pine/styl	number			1							1
	weight (g)			0.5							0.5
Unidentified	number				3	4	1	2			10
	weight (g)				11.09	15.7	7.5	5.62			39.91
Wire	number				1	4		4	3		12
	weight (g)				0.28	10.71		12.96	37.33		61.28

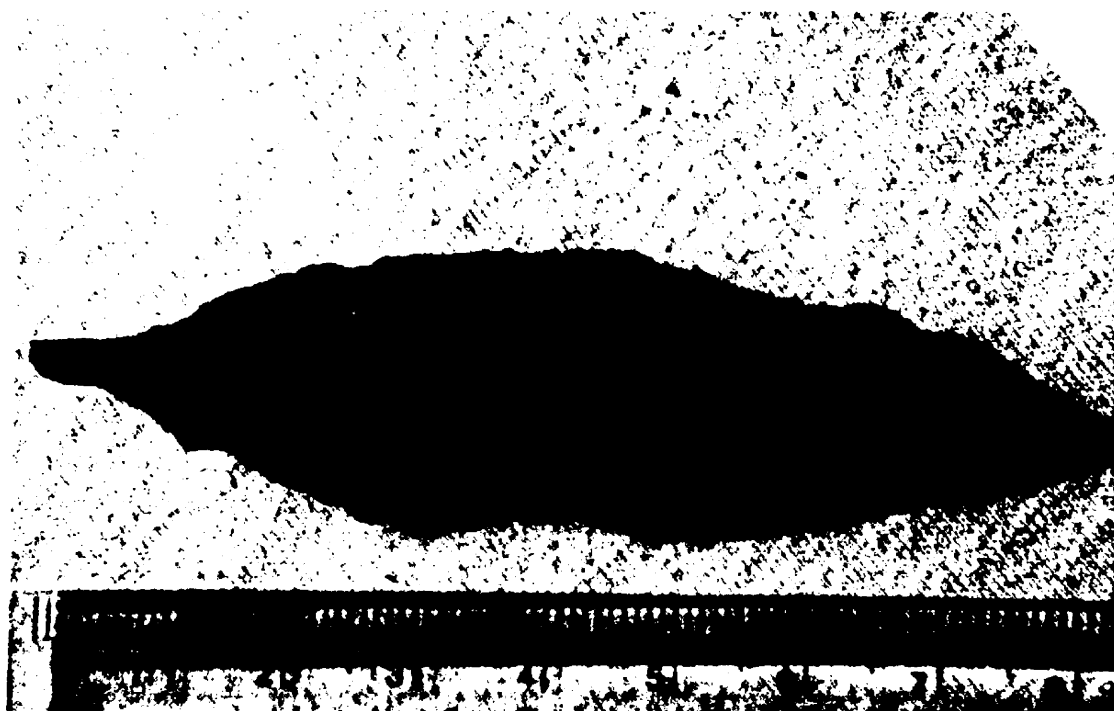
Category	Period	A.	B	C,D & E	F	G	H	I	J	K	Total
Sheets	number		2	3	2	16		5	2		30
	weight (g)		0.2	6.6	8.8	59.57		29.72	2.21		107.1
Bars	number			4	1	6		15			28
	weight (g)			29.65	44	105.43		328.93			468.41
Unidentified frags	number		4	10	8	64	3	20	4		113
	weight (g)		11.52	13.9	20.7	395.84	33.53	251.84	6.76		734.09
Total	number		6	21	21	103	6	51	9		218
	weight (g)		11.72	58.59	169.33	615.74	47.63	664.24	46.3		1613.45

Table 3.4 Gold objects

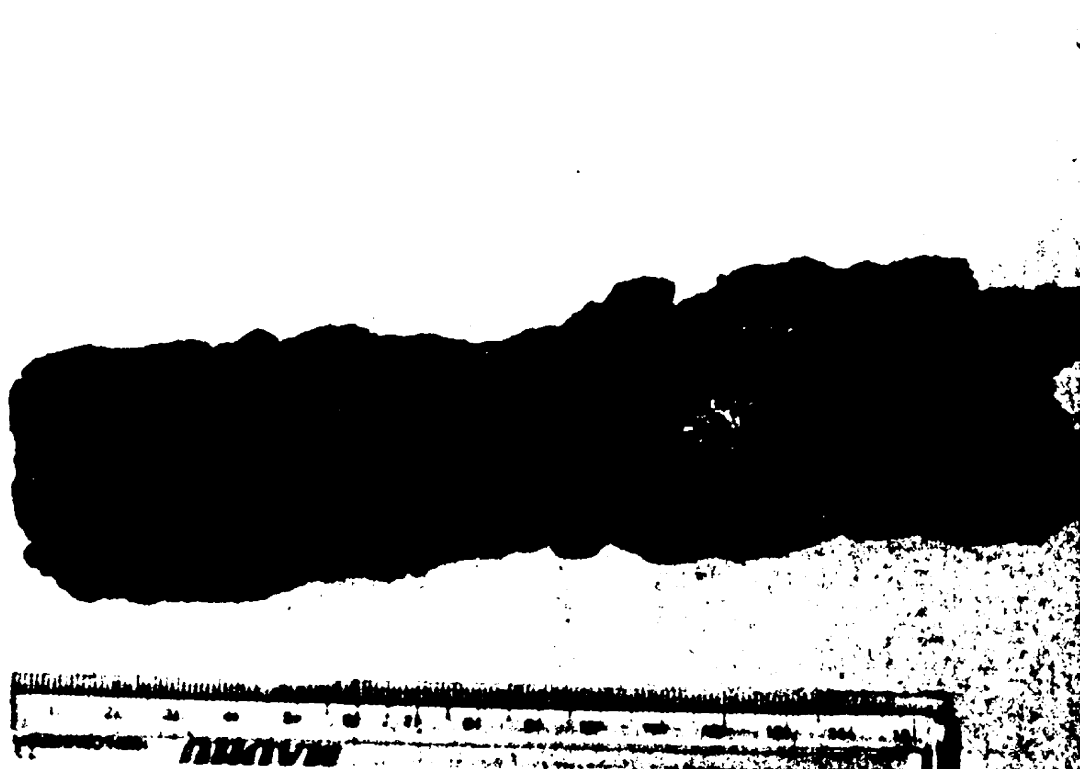
Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Foil	number		1	1	3						6
	weight (g)		5	5	12.5						22.5
Total	number		1	1	3						6
	weight (g)		5	5	12.5						22.5

Table 3.5 Lead objects

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Rolled strips	number					3					3
	weight (g)					81.96					91.96
Discs	number					1					1
	weight (g)					21.99					21.99
Sheets	number	1				1					2
	weight (g)	55.68				4.04					59.72
Total	number	1				5					6
	weight (g)	55.68				107.99					163.67



Iron arrowhead (sf 10679)



Iron axehead (sf 5373)

Plate 3.1: Metal objects



Iron cleaver blade (sf 6670)

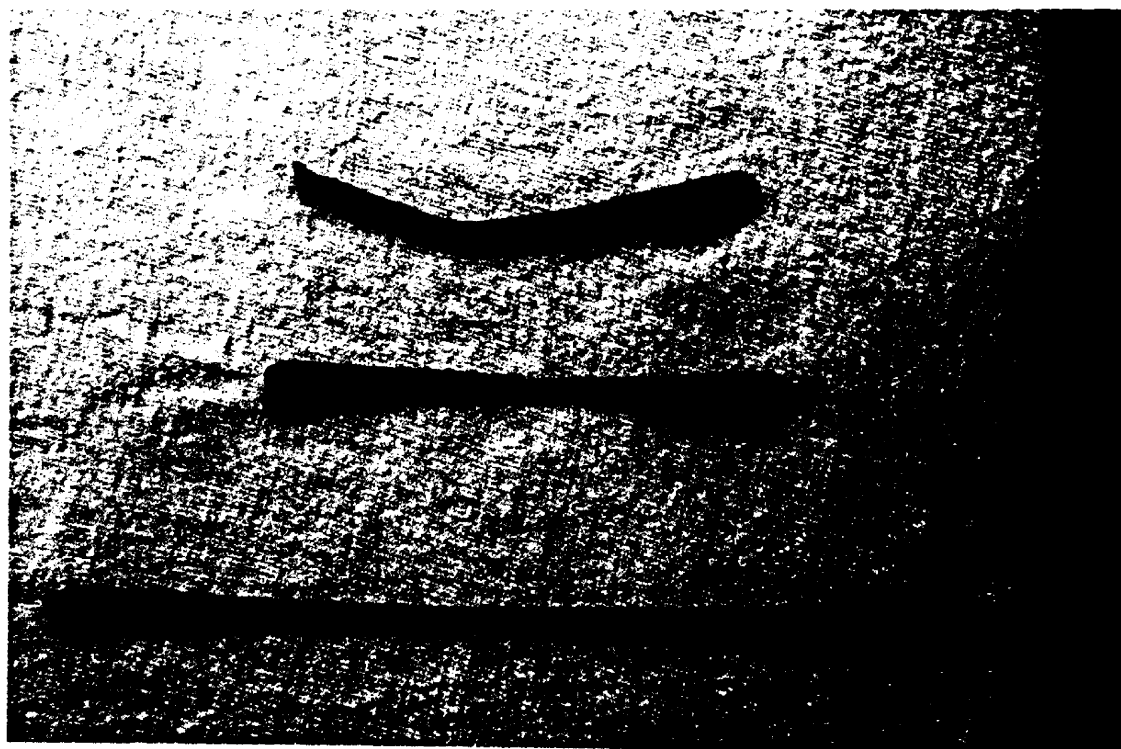


Iron collar and bar (sf 10120)

Plate 3.2: Metal objects



Copper-alloy bells (sfs 1475 [left] and 1757 [right])

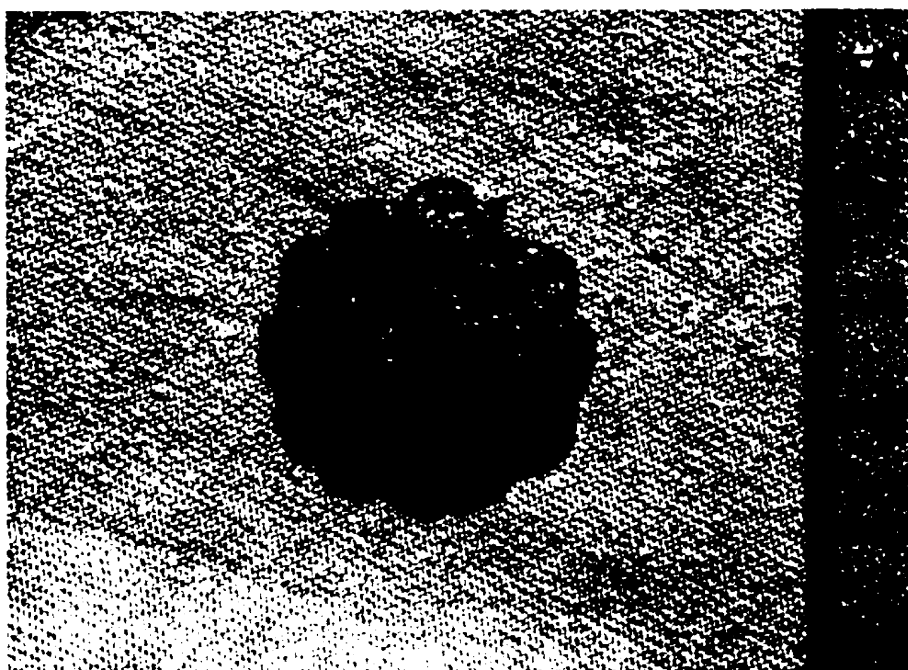


Copper-alloy kohl sticks (sfs 6347 [bottom], 6178 [middle] and 2891 [top])

Plate 3.3: Metal objects

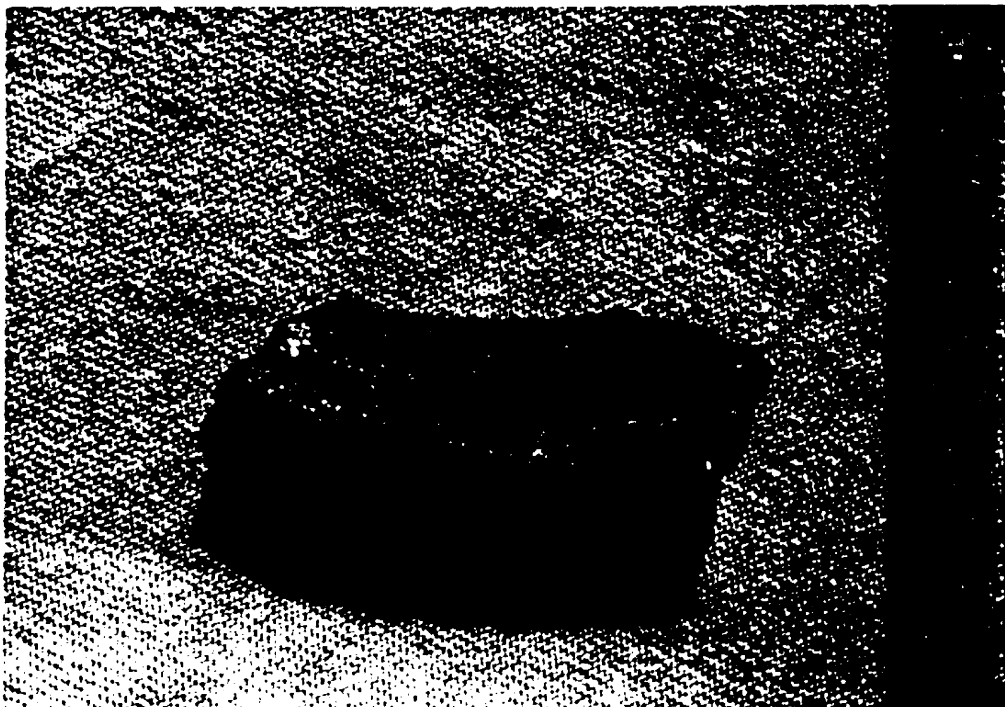


Copper-alloy stamp seal (sf 676)

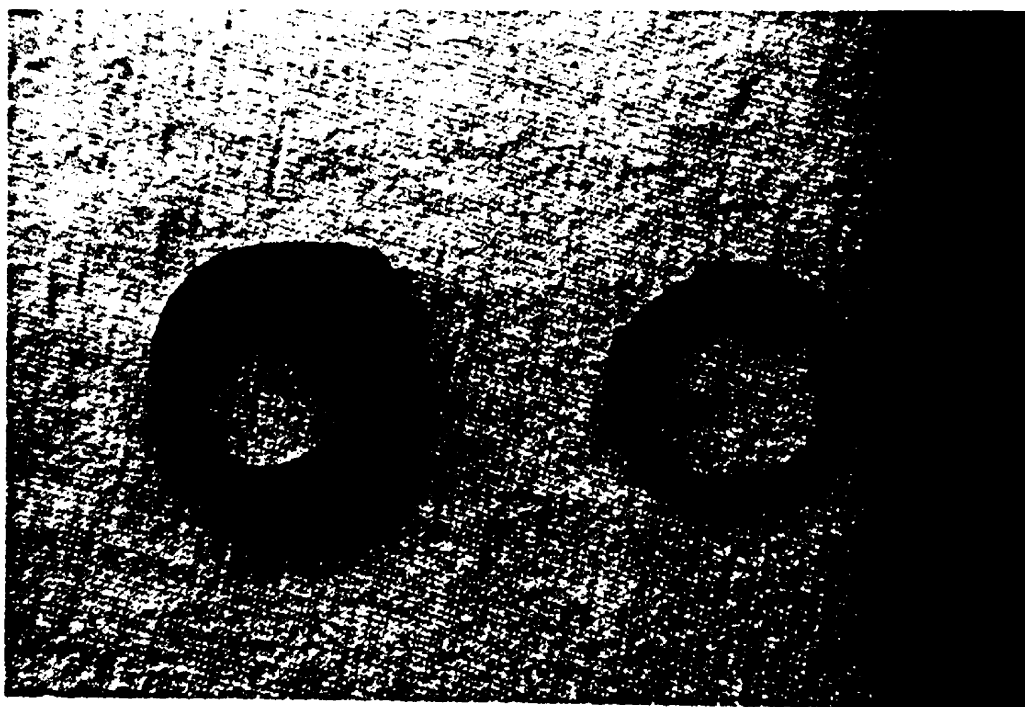


Copper-alloy petal decoration (sf 10108)

Plate 3.4: Metal objects



Copper-alloy mirror fragment (sf 15086)

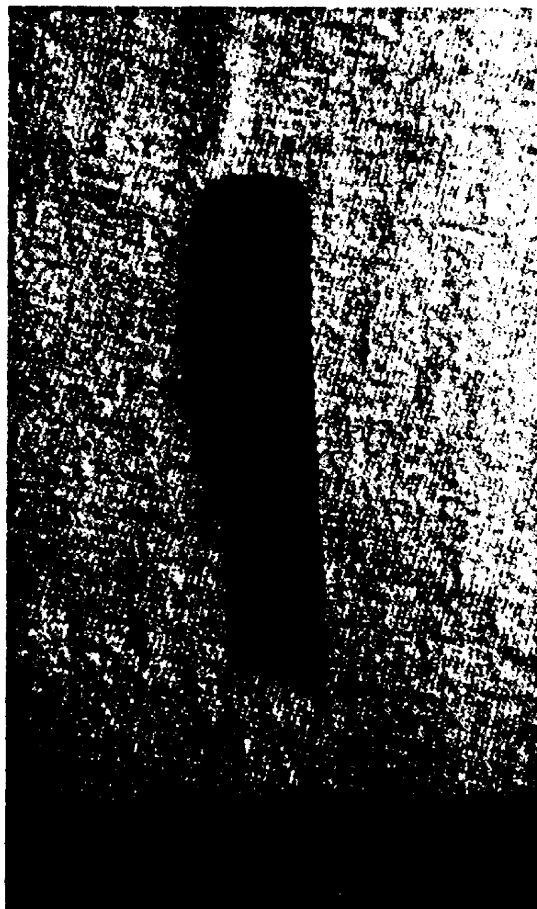


Copper-alloy rings (sfs 2873 [left] and 2850 [right])

Plate 3.5: Metal objects



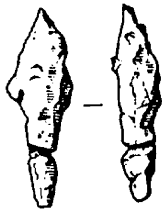
Copper-alloy stupa umbrella or handle (sf 10137)



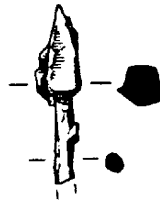
Copper-alloy decorated strip (sf 2840)

Plate 3.6: Metal objects

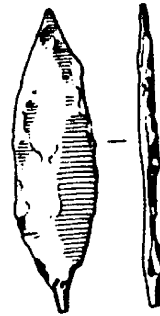
sf 15969



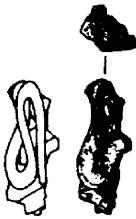
sf 17405



sf 10679



sf 17185



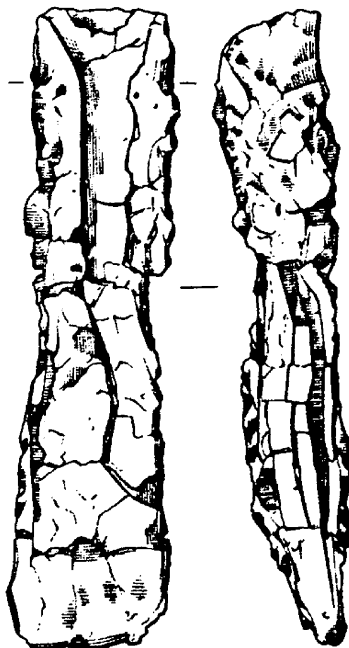
sf 15063



sf 8259



sf 5373



sf 15862

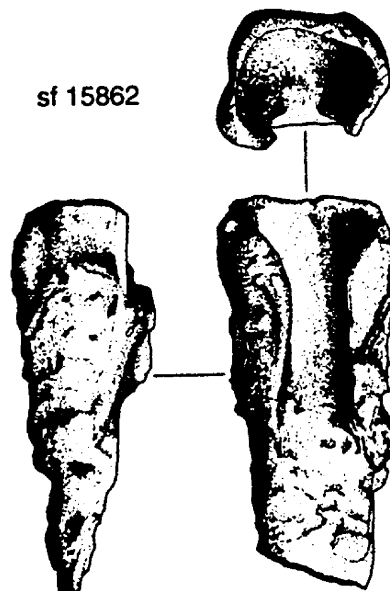


Figure 3.1 Metal Objects

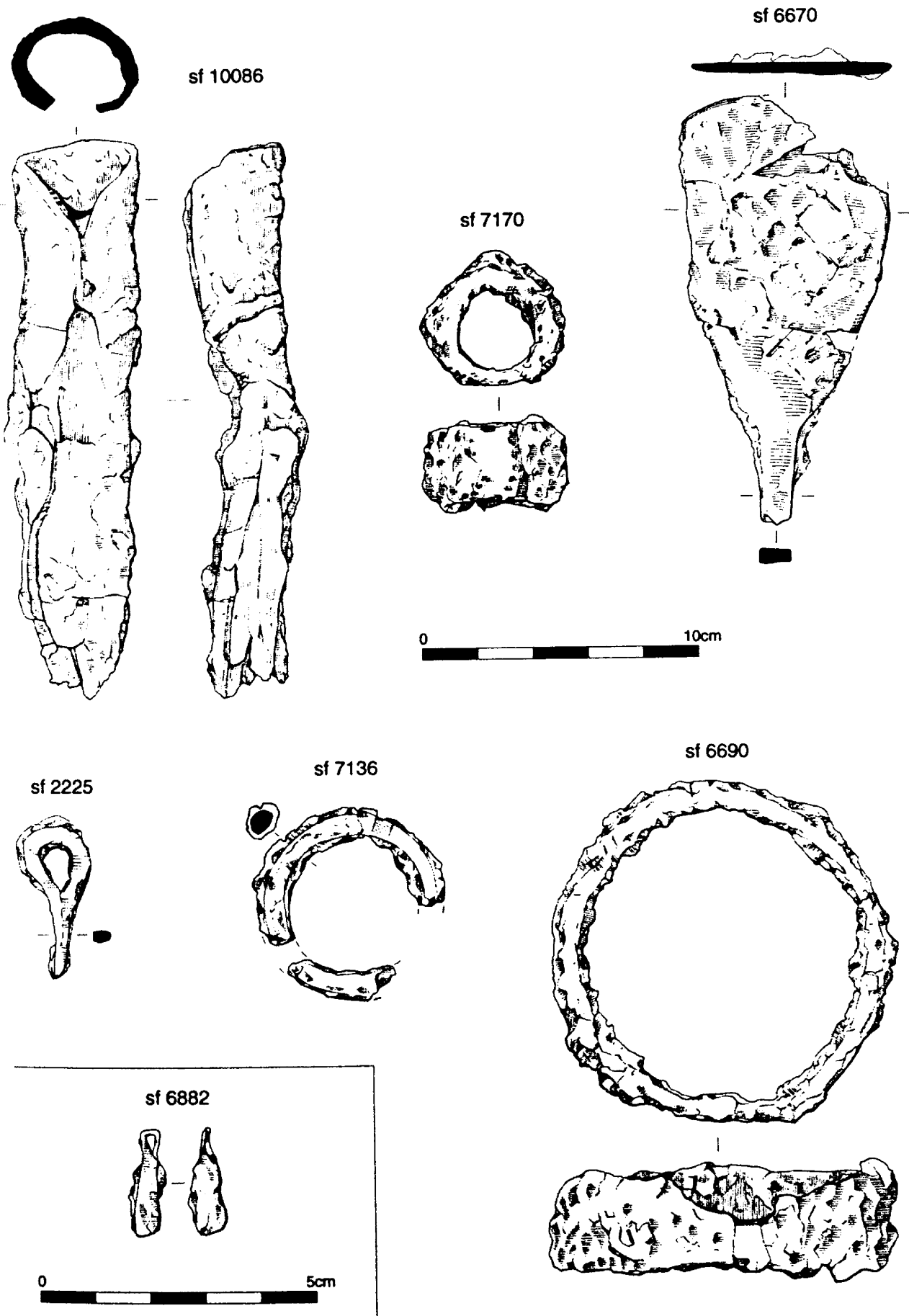


Figure 3.2 Metal Objects

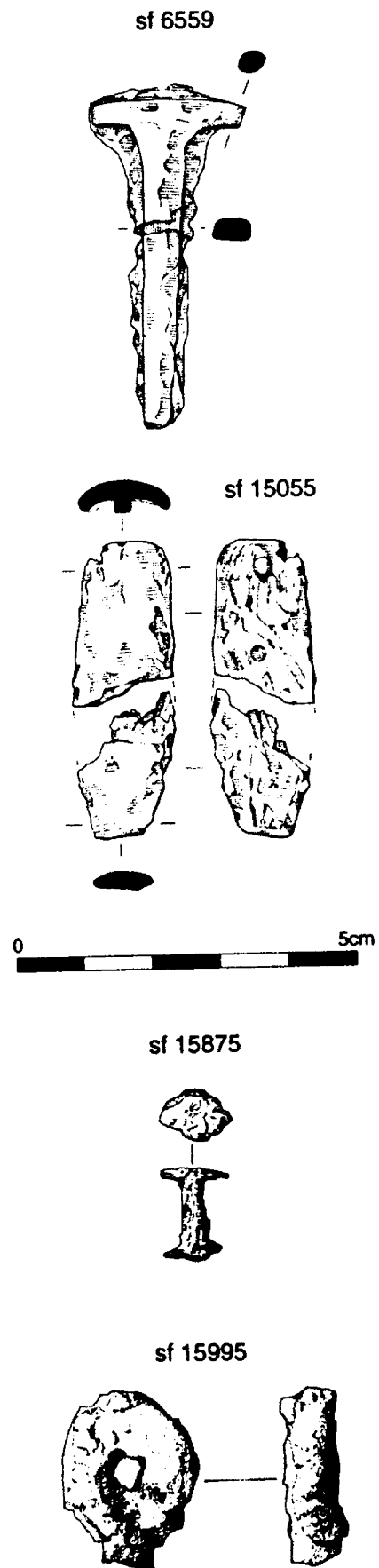
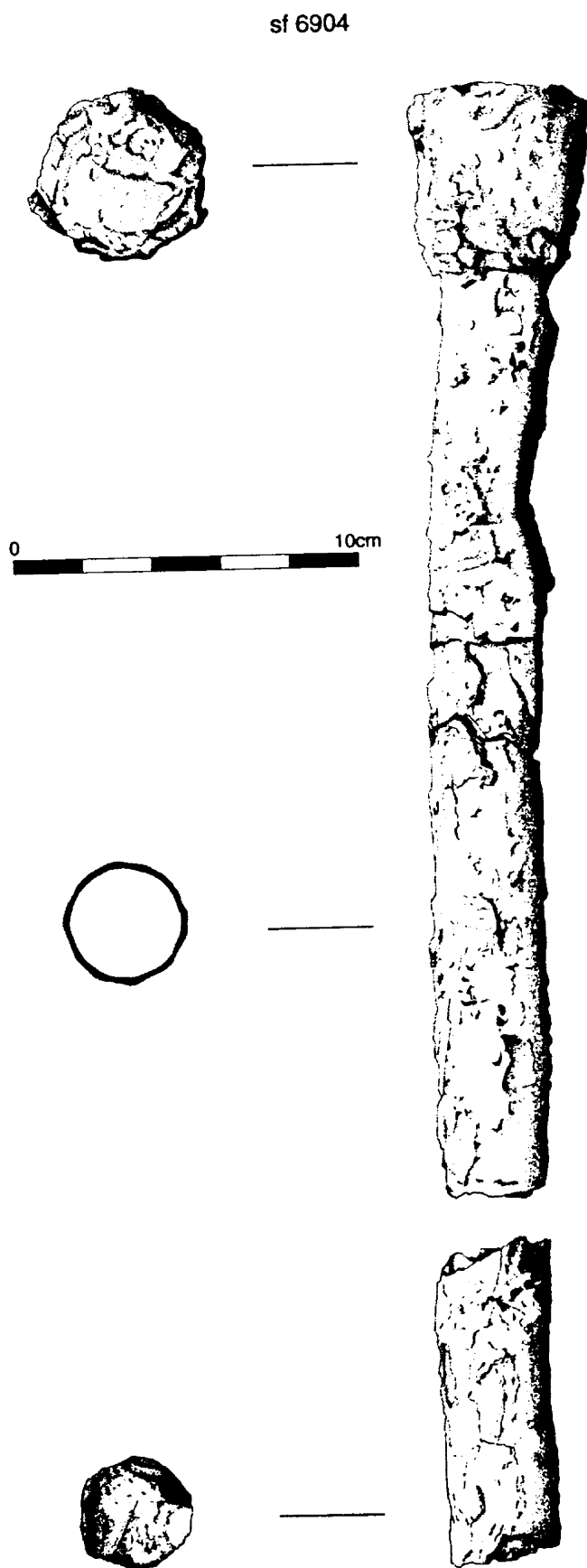


Figure 3.3 Metal Objects

Metal Objects

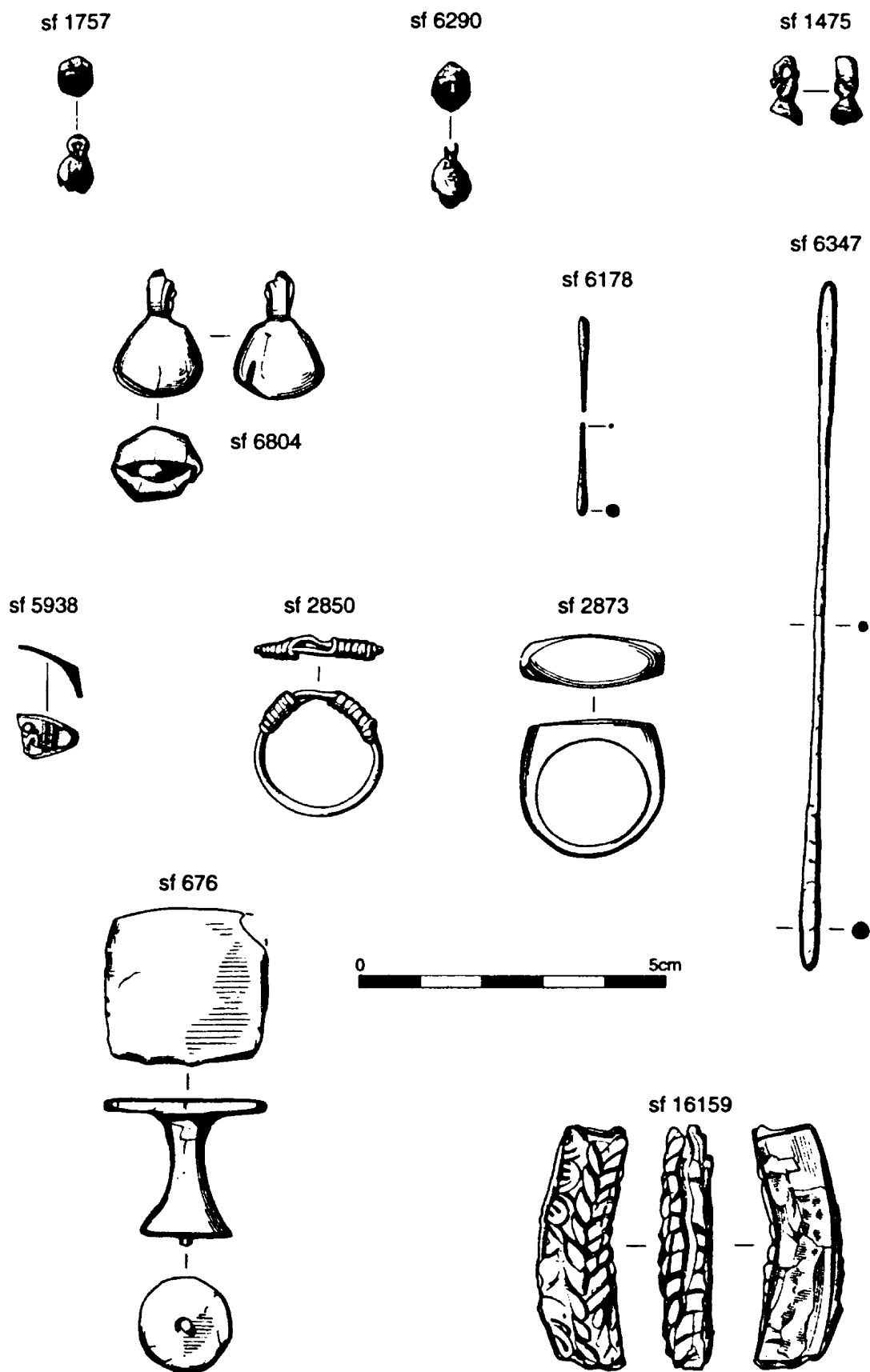


Figure 3.4 Metal Objects

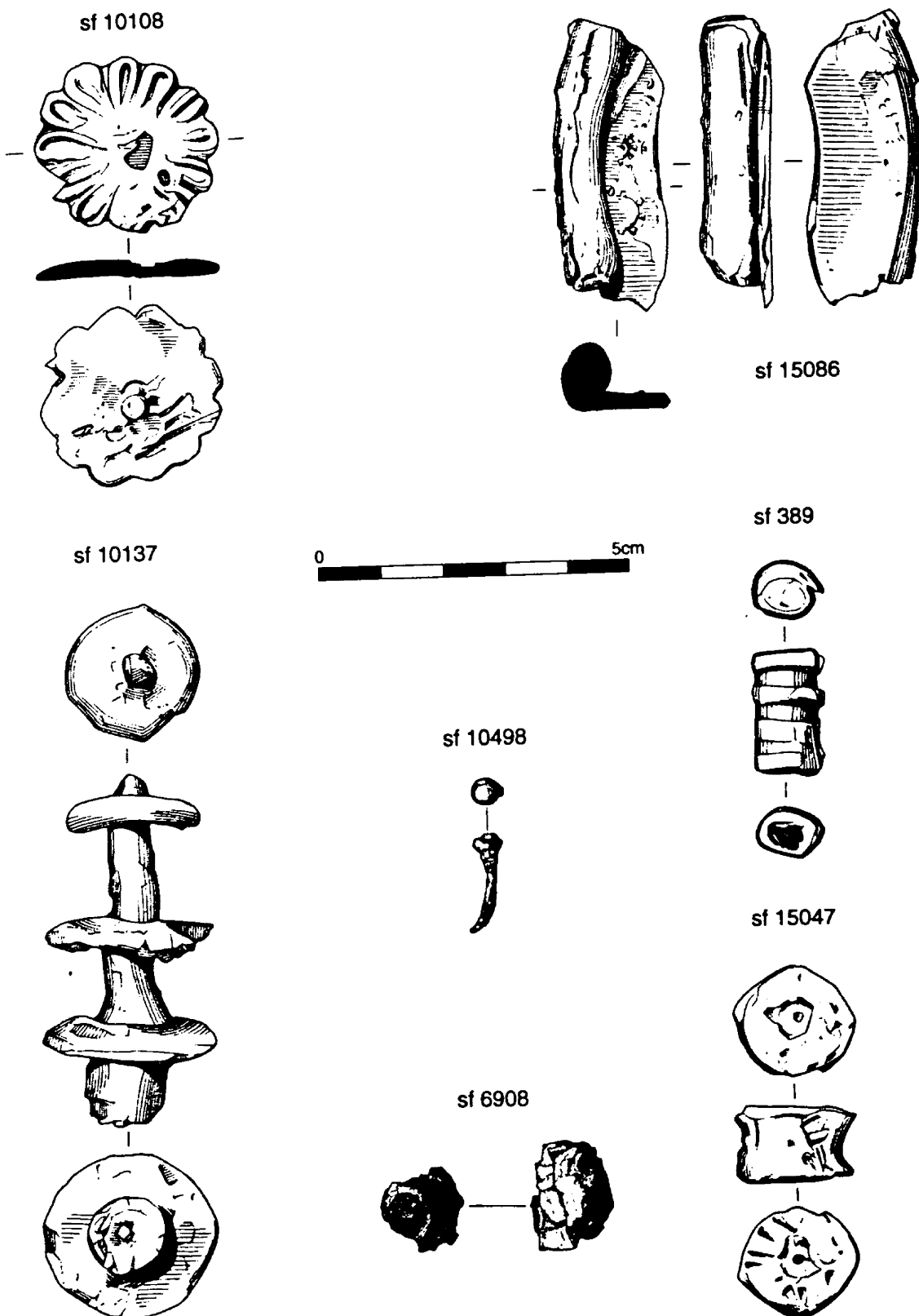


Figure 3.5 Metal Object

CHAPTER 4

METAL-WORKING RESIDUES

Gerry McDonnell, Adam Russell and Robin Coningham

4.1 Introduction

The study of the antiquity of metal-working in Sri Lanka is still in its infancy (see Maps 7 and 8). Problems ranging from the availability of very small residue collections to the use of broad definitions such as slag have further hindered this study. Indeed, recent survey and experimental work on the production of steel in mediaeval Sri Lanka is shedding new light on a period which was thought to be fully understood from a large collection of textual evidence (Juleff 1990, 1998). Slags have been recovered from a variety of sites ranging in date from 'megalithic' burial sites to mediaeval furnaces, highlighting the continuity of the production of metal objects. Deraniyagala has argued that the earliest appearance of iron technology occurred between c. 900 and 600 BC (1992: 709) and that it was imported to the island from the subcontinent (*ibid.*: 710). Furthermore he has hypothesized that the manufacture and export of high-quality iron was partly a causative factor behind the early development of Anuradhapura as a sizeable settlement in c. 800–600 BC (*ibid.*: 714). He comments also that metal-working slag occurs in every sondage from the Early Iron Age to the later Early Historic, suggesting the importance of such manufacture (*ibid.*). In addition to the iron slags recovered from Deraniyagala's sondages, iron slag has also been recovered from excavations at other settlement sites (Begley 1967: 192; Carswell and Prickett 1984: 65) and from 'megalithic' burials (Seneviratna 1984: 240–42). The metal-working residues from ASW2 can be divided into four main categories: ferrous diagnostic slags and residues, non-ferrous diagnostic residues, non-diagnostic slags and residues, and crucibles (see Table 4.1). As the majority of this material is only a by-product of metal-working, a fuller description of the processes will be offered below. A further category, stone moulds, is also considered here.

The earliest iron-smelting technology is known as the Direct Method of Iron Production. It was a single-stage process, hence 'direct', producing a malleable iron that could be smithed to an artefact. This term was used by Percy (1864: 254) to distinguish the process from the Indirect Process, which was a two-stage process, producing liquid cast iron that required a second process to convert or refine it into a malleable iron (the finery/chafer process or later the puddling process). The Indirect Method was rapidly adopted in China, but elsewhere the Direct Method provided the bulk of iron until the blast furnace technology of the Indirect Method

was adopted, which occurred at different periods in different parts of the world.

The complete cycle of manufacturing an iron artefact using the Direct Method from the ore can be divided into three distinct stages (McDonnell 1988, 1995): the smelting of the ore to produce a bloom of iron; the refining and consolidation of the bloom to a billet (primary smithing or bloom smithing); and the shaping of the billet or bar into an artefact (secondary smithing). Secondary smithing also includes the repair and recycling of artefacts.

The iron-smelting process performed two equally important functions. Firstly, the reduction of the iron oxide to the metallic state. Secondly, the formation of slag from the gangue products (e.g. silica, alumina etc.) present in the ore and the separation of the slag from the metal. The operation of a furnace is a compromise; iron ore can be readily reduced to the metal at about 800°C, but the temperature has to be elevated to about 1000°C to liquitate the slag. These two operations did not occur in the same position within the furnace. The products of the furnace were the metallic bloom and the waste slag. The morphology of the slag was dependent on the method of removal.

Primary smithing, or bloom smithing, involves the removal and consolidation of the metallic lump in the furnace. It may be heterogeneous, comprising regions free of other elements, ferritic iron; rich in carbon (steel) or phosphorus (phosphoric iron). All the regions will contain slag as slag inclusions. The product of this process was a billet of iron that could be worked up to an artefact or traded to other centres for smithing into artefacts. This process also generated waste slags and residues (see Crew 1991). In addition, secondary smithing also occurs. The manufacture of an iron object by smithing was a complicated and skilled process. All irons and steels had to be worked in the solid state by hot or cold working, joined by (high-temperature) fire welding and often finished by high-temperature heat treatments.

Distinctions must be made between the many types of smithy that have been used in the past. It is possible to smith iron on the ground with bellows and a fuel, leaving little evidence in the archaeological record. A permanent smithy would have been a more substantial structure, possibly waist-high. The smithing process produced residues, in particular scale, and silicate slag in the form of hearth bottoms and smithing slag lumps. The mechanism of slag formation is not understood

(McDonnell 1991), but these by-products do not form from the slag inclusions present in the metal dripping into the hearth. It is vital that they are recovered, quantified and analysed.

The evidence from Anuradhapura indicates that copper alloys and silver were also melted, presumably to cast objects. There is no evidence for the smelting of these metals. Secondary copper-(alloy) working requires a hearth with bellows to melt the alloys (the melting point depends on the alloy composition but is of the order of 900–1000°C). The unmelted metal or alloy was placed in a crucible, probably sealed with charcoal to stop oxidation of the metal, heated until it melted and then poured into a mould. Crucible fragments can survive, but moulds are temporary artefacts, made of sand or poorly fired clay, and therefore do not normally survive well in the archaeological record. Thus there is

often very little evidence for the type of artefact being produced. Details of copper-alloy working can be found in Tylecote 1991 and Craddock 1995.

The slags were visually examined and the classification is based solely on morphology. It is normal procedure to distinguish between diagnostic slags and non-diagnostic residues. The former can be attributed to a particular industrial process; these comprise the iron-working slags, i.e. smelting or smithing slags, and non-ferrous working debris. The second group, the non-diagnostic residues, could have been generated by a number of different processes but show no diagnostic characteristic that can identify the process. In many cases the non-diagnostic residues, e.g. hearth or furnace lining, may be ascribed to a particular process through archaeological association. The residue classifications are defined below.

4.2 Ferrous diagnostic slags and residues

A total of 24,907.5g of iron-working residues was recovered from the excavations at trench ASW2. All structural periods on the site yielded these slags, in greater or lesser quantities. It is generally assumed that all the iron-working slag recovered from an excavation is smithing slag unless proved otherwise, but some forms of smelting slag are difficult to distinguish from smithing slag. However, despite this problem, no iron-smelting slag was identified. There were only two types of iron-working slag identified in the ASW assemblage: smithing slag – randomly shaped pieces of silicate slag generated by the smithing process; and hearth bottom – a plano-convex accumulation of silicate slag formed in the smithing hearth. All would appear to have been the result of smithing operations, although one or two specimens showed characteristics of smelting slags. No slag was recovered that was definitely characteristic of smelting operations and, as such, all the slag has been listed as

smithing slag. The category includes a number of roughly bowl-shaped hearth bottoms, formed by molten and semi-molten slag collecting in the bottom of the smithing hearth, some with tiny fragments of hearth lining still adhering to them. All the slag was grey-black, vesicular to a greater or lesser extent, and dense. The earliest iron-working residues at the site were recovered from structural phase K3, which dates to the first half of the first millennium BC. In parallel, the earliest iron objects at the site also come from the same structural period. While the majority of the residues have been incorporated into old land surfaces, a number were recovered from the fills of pits, troughs and postholes. Iron slags, as mentioned above (section 4.1), have been recovered from a number of Sri Lankan sites. However the evidence from the Citadel of Anuradhapura is amongst the earliest.

Special find no: 391 Stratigraphic phase: CXIV	Context: 4nw Weight: 765.3g	Special find no: 97 Stratigraphic phase: CIV	Context: 26sw Weight: 127.3g
Special find no: 395 Stratigraphic phase: CXIV	Context: 4sw Weight: 922.8g	Special find no: 1447 Stratigraphic phase: CIV	Context: 26se Weight: 7.2g
Special find no: 851 Stratigraphic phase: CXIV	Context: 4se Weight: 137.1g	Special find no: 115 Stratigraphic phase: C	Context: 27se Weight: 231.9g
Special find no: 396 Stratigraphic phase: CXIV	Context: 4sw Weight: 326.2g	Special find no: 121 Stratigraphic phase: C	Context: 27 Weight: 73.0g
Special find no: 403 Stratigraphic phase: CXIV	Context: 4nw Weight: 85.9g	Special find no: 105 Stratigraphic phase: C	Context: 27sw Weight: 24.2g
Special find no: 387 Stratigraphic phase: CXIV	Context: 4se Weight: 102.3g	Special find no: 92 Stratigraphic phase: CIII	Context: 28nw Weight: 40.5g
Special find no: 402 Stratigraphic phase: CXIV	Context: 4nw Weight: 60.4g	Special find no: 1437 Stratigraphic phase : C	Context: 41sw Weight: 21.8g
Special find no: 404 Stratigraphic phase: CXII	Context: 5nw Weight: 11.6g	Special find no: 400 Stratigraphic phase: C	Context: 41nw Weight: 3.7g
Special find no: 403 Stratigraphic phase: CXII	Context: 5nw Weight: 18.0g	Context: 41se Stratigraphic phase: C	Weight: 71.7g
Special find no: 21 Stratigraphic phase: CVI	Context: 9ne Weight: 64.9g	Special find no: 174 Stratigraphic phase: C	Context: 41sw Weight: 236.1g

Metal-working Residues

Special find no: 920 Stratigraphic phase: CVI	Context: 9se Weight: 3.0	Special find no: 1294 Stratigraphic phase: C	Context: 41se Weight: 4.2g
Special find no: 18 Stratigraphic phase: CVI	Context: 9 Weight: 14.3g	Special find no: 161 Stratigraphic phase: C	Context: 41sw Weight: 52.8g
Special find no: 66 Stratigraphic phase: CII	Context: 14 Weight: 10.5g	Special find no: 914 Stratigraphic phase: C	Context: 41sw Weight: 18.9g
Special find no: 69 Stratigraphic phase: CII	Context: 14 Weight: 2.9g	Special find no: 397 Stratigraphic phase: C	Context: 41sw Weight: 38.8g
Special find no: 58 Stratigraphic phase: CII	Context: 14 Weight: 922.0g	Special find no: 929 Stratigraphic phase: C	Context: 41 Weight: 10.1g
Special find no: 42 Stratigraphic phase: CXI	Context: 15 Weight: 442.1g	Special find no: 137 Stratigraphic phase: C	Context: 41nw Weight: 25.3g
Special find no: 25 Stratigraphic phase: CXI	Context: 15se Weight: 6.0g	Special find no: 837 Stratigraphic phase: C	Context: 41nw Weight: 17.6g
Special find no: 53 Stratigraphic phase: CXI	Context: 15nw Weight: 89.9g	Special find no: 7721 Stratigraphic phase: XCV	Context: 42 Weight: 252.8g
Special find no: 57 Stratigraphic phase: CXI	Context: 15ne Weight: 943.7g	Special find no: 132 Stratigraphic phase: XCVI	Context: 43ne Weight: 7.9g
Special find no: 35 Stratigraphic phase: CXIII	Context: 17se Weight: 1.7g	Special find no: 198 Stratigraphic phase: XCVI	Context: 43 Weight: 8.7g
Special find no: 64 Stratigraphic phase: C	Context: 24nw Weight: 191.3g	Special find no: 1293 Stratigraphic phase: XCV	Context: 44se Weight: 36.2g
Special find no: 111 Stratigraphic phase: C	Context: 24nw Weight: 979.4g	Special find no: 197 Stratigraphic phase: XCVI	Context: 47b Weight: 316.4g
Special find no: 72 Stratigraphic phase: C	Context: 24nw Weight: 259.5g	Special find no: 279 Stratigraphic phase: XCVI	Context: 47b Weight: 67.2g
Special find no: 1145 Stratigraphic phase: XCVII	Context: 25ne Weight: 164.5g	Special find no: 136 Stratigraphic phase: XCVIII	Context: 48se Weight: 513.7g
Special find no: 931 Stratigraphic phase: XCVII	Context: 25 Weight: 5.5g	Special find no: 1468 Stratigraphic phase: XCV	Context: 49se Weight: 60.0g
Special find no: 912 Stratigraphic phase: XCVII	Context: 25 Weight: 4.9g	Special find no: 155 Stratigraphic phase: XCV	Context: 56se Weight: 411.3g
Special find no: 398 Stratigraphic phase: CIV	Context: 26 Weight: 72.1g	Special find no: 179 Stratigraphic phase: XCV	Context: 61ne Weight: 26.5g
Special find no: 853 Stratigraphic phase: CIV	Context: 26 Weight: 34.4g	Special find no: 262 Stratigraphic phase: XCIII	Context: 73nw Weight: 10.0g
Special find no: 5954 Stratigraphic phase: XCIII	Context: 73sw Weight: 23.3g	Special find no: 441 Stratigraphic phase: XCV	Context: 158nw Weight: 304.3g
Special find no: 2614 Stratigraphic phase: XCIII	Context: 73ne Weight: 2.6g	Special find no: 453 Stratigraphic phase: XCV	Context: 158nw Weight: 9.4g
Special find no: 1466 Stratigraphic phase: XCV	Context: 76ne Weight: 41.8g	Special find no: 645 Stratigraphic phase: XCV	Context: 158nw Weight: 632.3g
Special find no: 1459 Stratigraphic phase: XCV	Context: 76ne Weight: 19.6g	Special find no: 646 Stratigraphic phase: XCV	Context: 158nw Weight: 33.4g
Special find no: 1432 Stratigraphic phase: XCIX	Context: 82nw Weight: 34.3g	Special find no: 638 Stratigraphic phase: XCV	Context: 158nw Weight: 212.7g
Special find no: 1443 Stratigraphic phase: XCIX	Context: 82nw Weight: 8.6g	Special find no: 1474 Stratigraphic phase: XCV	Context: 158nw Weight: 1145.7g
Special find no: 927 Stratigraphic phase: XCV	Context: 87se Weight: 5.9g	Special find no: 1472 Stratigraphic phase: XCV	Context: 158nw Weight: 348.4g
Special find no: 1457 Stratigraphic phase: XCV	Context: 87nw Weight: 4.2g	Special find no: 669 Stratigraphic phase: XCV	Context: 158nw Weight: 45.8g

Anuradhapura: The Artefacts

Special find no: 932 Stratigraphic phase: XCV	Context: 87sw Weight: 6.3g	Special find no: 872 Stratigraphic phase: XCV	Context: 158nw Weight: 45.1g
Special find no: 265 Stratigraphic phase: XCV	Context: 88ne Weight: 55.3g	Special find no: 639 Stratigraphic phase: XCV	Context: 158nw Weight: 68.6g
Special find no: 1473 Stratigraphic phase: XCV	Context: 88ne Weight: 175.0g	Special find no: 630 Stratigraphic phase: XCV	Context: 158nw Weight: 934.5g
Special find no: 1455 Stratigraphic phase: XCV	Context: 97se Weight: 5.0g	Special find no: 649 Stratigraphic phase: XCV	Context: 158nw Weight: 853.8g
Special find no: 899 Stratigraphic phase: XCV	Context: 103nw Weight: 8.2g	Special find no: 5444 Stratigraphic phase: XCV	Context: 173sw Weight: 390.5g
Special find no: 928 Stratigraphic phase: XCV	Context: 107nw Weight: 1.3g	Special find no: 1442 Stratigraphic phase: XCV	Context: 215 Weight: 2.9g
Special find no: 107 Stratigraphic phase: XCV	Context: 107nw Weight: 78.3g	Special find no: 1523 Stratigraphic phase: XCV	Context: 251nw Weight: 19.2g
Special find no: 466 Stratigraphic phase: XCV	Context: 107nw Weight: 14.7g	Special find no: 1532 Stratigraphic phase: XCV	Context: 253nw Weight: 315.4gm
Special find no: 896 Stratigraphic phase: XCV	Context: 111sw Weight: 12.6g	Special find no: 1556 Stratigraphic phase: XCV	Context: 253nw Weight: 34.6g
Special find no: 1496 Stratigraphic phase: XCV	Context: 112ne Weight: 3.7g	Special find no: 1541 Stratigraphic phase: XCV	Context: 253nw Weight: 8.1g
Special find no: 959 Stratigraphic phase: XCV	Context: 123ne Weight: 85.2g	Special find no: 1672 Stratigraphic phase: XCV	Context: 256se Weight: 132.1g
Special find no: 1470 Stratigraphic phase: XCV	Context: 124nw Weight: 70.7g	Special find no: 1654 Stratigraphic phase: XCV	Context: 256se Weight: 174.7g
Special find no: 1469 Stratigraphic phase: XCV	Context: 126se Weight: 76.7g	Special find no: 1676 Stratigraphic phase: XCV	Context: 256se Weight: 127.3g
Special find no: 335 Stratigraphic phase: XCV	Context: 126se Weight: 76.0g	Special find no: 2337 Stratigraphic phase: XCV	Context: 263sw Weight: 111.0g
Special find no: 1439 Stratigraphic phase: XCV	Context: 127sw Weight: 32.2g	Special find no: 2263 Stratigraphic phase: XCV	Context: 268se Weight: 5.6g
Special find no: 898 Stratigraphic phase: XCV	Context: 134se Weight: 80.8g	Special find no: 8668 Stratigraphic phase: XCV	Context: 270se Weight: 15.3g
Special find no: 496 Stratigraphic phase: XCV	Context: 134se Weight: 63.3g	Special find no: 2339 Stratigraphic phase: XCV	Context: 273se Weight: 282.4g
Special find no: 878 Stratigraphic phase: XCV	Context: 134se Weight: 66.2g	Special find no: 2350 Stratigraphic phase: XCV	Context: 283nw Weight: 17.2g
Special find no: 847 Stratigraphic phase: XCV	Context: 134se Weight: 233.5g	Special find no: 1788 Stratigraphic phase: XCV	Context: 289ne Weight: 21.7g
Special find no: 1438 Stratigraphic phase: XCV	Context: 134 Weight: 19.6g	Special find no: 1760 Stratigraphic phase: XCV	Context: 289ne Weight: 207.3g
Special find no: 1453 Stratigraphic phase: XCV	Context: 142 Weight: 42.8g	Special find no: 2207 Stratigraphic phase: XCV	Context: 295ne Weight: 16.1g
Special find no: 431 Stratigraphic phase: XCV	Context: 142 Weight: 11.8g	Special find no: 6089 Stratigraphic phase: XCV	Context: 296ne Weight: 9.1g
Special find no: 1436 Stratigraphic phase: XCV	Context: 142se Weight: 10.6g	Special find no: 2349 Stratigraphic phase: XCV	Context: 301ne Weight: 10.7g
Special find no: 486 Stratigraphic phase: XCV	Context: 151se Weight: 23.2g	Special find no: 5956 Stratigraphic phase: XCIII	Context: 306 Weight: 21.4g
Special find no: 448 Stratigraphic phase: XCV	Context: 155 Weight: 46.2g	Special find no: 5309 Stratigraphic phase: XCV	Context: 313 Weight: 67.5g
Special find no: 631 Stratigraphic phase: XCV	Context: 158nw Weight: 451.9g	Special find no: ? Stratigraphic phase: XCV	Context: 313 Weight: 9.5g

Metal-working Residues

Special find no: 640 Stratigraphic phase: XCV	Context: 158 Weight: 25.7g	Special find no: 1790 Stratigraphic phase: XCV	Context: 316ne Weight: 8.8g
Special find no: 480 Stratigraphic phase: XCV	Context: 158nw Weight: 105.0g	Special find no: 1914 Stratigraphic phase: XCV	Context: 320ne Weight: 59.9g
Special find no: 1832 Stratigraphic phase: XCV	Context: 320ne Weight: 296.2g	Special find no: 8456 Stratigraphic phase: LXXXI	Context: 487 Weight: 3.9g
Special find no: 2202 Stratigraphic phase: XCV	Context: 320ne Weight: 11.1g	Special find no: 7090 Stratigraphic phase: LXXV	Context: 490sw Weight: 78.1g
Special find no: 2193 Stratigraphic phase: XCV	Context: 320ne Weight: 30.9g	Special find no: 8214 Stratigraphic phase: LXXV	Context: 493 Weight: 49.6g
Special find no: 1989 Stratigraphic phase: XCV	Context: 320ne Weight: 47.9g	Special find no: 7198 Stratigraphic phase: LXXV	Context: 494ne Weight: 10.0g
Special find no: 1904 Stratigraphic phase: XCV	Context: 325ne Weight: 6.7g	Special find no: 15877 Stratigraphic phase: LXX	Context: 616 Weight: 1.3g
Special find no: 1805 Stratigraphic phase: XCV	Context: 325ne Weight: 79.9g	Special find no: 16223 Stratigraphic phase: LXVIII	Context: 632nw Weight: 253.9g
Special find no: 1913 Stratigraphic phase: XCV	Context: 325ne Weight: 35.3g	Special find no: 16679 Stratigraphic phase: LXIV	Context: 698ne Weight: 22.6g
Special find no: 8666 Stratigraphic phase: XCV	Context: 325ne Weight: 29.7g	Special find no: 1729 Stratigraphic phase: LXIII	Context: 722se Weight: 46.0g
Special find no: 1865 Stratigraphic phase: XCV	Context: 331se Weight: 4.5g	Special find no: 16173 Stratigraphic phase: LIII	Context: 729nw Weight: 33.9g
Special find no: 5988 Stratigraphic phase: XCV	Context: 334ne Weight: 9.5g	Special find no: 16336 Stratigraphic phase: XLII	Context: 772sw Weight: 22.6g
Special find no: 8000 Stratigraphic phase: XCV	Context: 334ne Weight: 6.2g	Special find no: 16351 Stratigraphic phase: XLVII	Context: 791 Weight: 19.4g
Special find no: 2531 Stratigraphic phase: XCV	Context: 344nw Weight: 16.1g	Special find no: 16613 Stratigraphic phase: XXXV	Context: 837se Weight: 60.2g
Special find no: 8024 Stratigraphic phase: XCIII	Context: 345sw Weight: 144.7g	Special find no: 16594 Stratigraphic phase: XL	Context: 850ne Weight: 98.0g
Special find no: 2670 Stratigraphic phase: XCV	Context: 356se Weight: 3.0g	Special find no: 404 Stratigraphic phase: XXXIII	Context: 880nw Weight: 701.0g
Special find no: 2571 Stratigraphic phase: XCV	Context: 359nw Weight: 3.0g	Special find no: 16541 Stratigraphic phase: XXXIII	Context: 880nw Weight: 208.7g
Special find no: 2634 Stratigraphic phase: XCV	Context: 359nw Weight: 7.1g	Special find no: 16689 Stratigraphic phase: XXX	Context: 962ne Weight: 31.1g
Special find no: 8660 Stratigraphic phase: XCIII	Context: 363ne Weight: 24.1g	Special find no: 16812 Stratigraphic phase: XXXII	Context: 964sw Weight: 30.8g
Special find no: 6036 Stratigraphic phase: XCII	Context: 364ne Weight: 11.9g	Special find no: 16801 Stratigraphic phase: XXXII	Context: 964sw Weight: 36.4g
Special find no: 5428 Stratigraphic phase: XCII	Context: 365nw Weight: 83.4g	Special find no: 17351 Stratigraphic phase: XXXII	Context: 964sw Weight: 10.0g
Special find no: 2693 Stratigraphic phase: XCII	Context: 365nw Weight: 153.0g	Special find no: 16810 Stratigraphic phase: XXVIII	Context: 977sw Weight: 22.2g
Special find no: 6087 Stratigraphic phase: XCII	Context: 365nw Weight: 22.6g	Special find no: 17608 Stratigraphic phase: XXVIII	Context: 977ne Weight: 19.8g
Special find no: 2738 Stratigraphic phase: XCII	Context: 371nw Weight: 32.9g	Special find no: 10490 Stratigraphic phase: XXVIII	Context: 977ne Weight: 59.9g
Special find no: 2737 Stratigraphic phase: XCII	Context: 371nw Weight: 3.0g	Special find no: 16824 Stratigraphic phase: XXVIII	Context: 977nw Weight: 213.0g
Special find no: 8038 Stratigraphic phase: XCV	Context: 373 Weight: 8.5g	Special find no: 17057 Stratigraphic phase: XXVIII	Context: 977ne Weight: 97.0g

Anuradhapura: The Artefacts

Special find no: 8658 Stratigraphic phase: XCV	Context: 373nw Weight: 2.5g	Special find no: 16811 Stratigraphic phase: XXVIII	Context: 977sw Weight: 136.5g
Special find no: 5963 Stratigraphic phase: LXXXVIII	Context: 375nw Weight: 24.3g	Special find no: 16821 Stratigraphic phase: XXVIII	Context: 977nw Weight: 46.2g
Special find no: 6184 Stratigraphic phase: LXXXVI	Context: 376nw Weight: 63.2g	Special find no: 16818 Stratigraphic phase: XXVIII	Context: 977nw Weight: 23.5g
Special find no: 6283 Stratigraphic phase: XCI	Context: 386nw Weight: 165.4g	Special find no: 17072 Stratigraphic phase: XXVIII	Context: 977ne Weight: 17.7g
Special find no: 6320 Stratigraphic phase: XCV	Context: 394sw Weight: 166.9g	Special find no: 17301 Stratigraphic phase: XXVIII	Context: 977nw Weight: 14.3g
Special find no: 5971 Stratigraphic phase: XCI	Context: 406sw Weight: 17.7g	Special find no: 10479 Stratigraphic phase: XXVIII	Context: 977ne Weight: 72.3g
Special find no: 5982 Stratigraphic phase: XCV	Context: 410 Weight: 11.0g	Special find no: 17095 Stratigraphic phase: XXVIII	Context: 977se Weight: 12.8g
Special find no: 5962 Stratigraphic phase: XCI	Context: 420sw Weight: 23.1g	Special find no: 17216 Stratigraphic phase: XXVIII	Context: 977ne Weight: 18.8g
Special find no: 5426 Stratigraphic phase: XCI	Context: 424ne Weight: 22.9g	Special find no: 17223 Stratigraphic phase: XXVIII	Context: 977ne Weight: 9.1g
Special find no: 6581 Stratigraphic phase: XCI	Context: 424nw Weight: 258.2g	Special find no: 17214 Stratigraphic phase: XXVIII	Context: 977ne Weight: 9.7g
Special find no: 8463 Stratigraphic phase: XCV	Context: 429sw Weight: 43.3g	Special find no: 17357 Stratigraphic phase: XXVIII	Context: 977se Weight: 10.9g
Special find no: 6739 Stratigraphic phase: LXXXVI	Context: 457sw Weight: 751.3g	Special find no: 17085 Stratigraphic phase: XXVIII	Context: 977se Weight: 4.9g
Special find no: 10563 Stratigraphic phase: XXVIII	Context: 977sw Weight: 11.6g	Special find no: 16806 Stratigraphic phase: XXVIII	Context: 977sw Weight: 97.8g
Special find no: 17171 Stratigraphic phase: XXVIII	Context: 977ne Weight: 92.3g	Special find no: 17080 Stratigraphic phase: XXVIII	Context: 977ne Weight: 5.7g
Special find no: 10492 Stratigraphic phase: XXVIII	Context: 977ne Weight: 51.3g	Special find no: 17176 Stratigraphic phase: XXVIII	Context: 977ne Weight: 65.8g
Special find no: 16807 Stratigraphic phase: XXVIII	Context: 977sw Weight: 25.9g	Special find no: 17186 Stratigraphic phase: XXVIII	Context: 977ne Weight: 37.4g
Special find no: 17184 Stratigraphic phase: XXVIII	Context: 977ne Weight: 118.2g	Special find no: 17067 Stratigraphic phase: XXVIII	Context: 977ne Weight: 22.8g
Special find no: 17206 Stratigraphic phase: XXVIII	Context: 977ne Weight: 21.3g	Special find no: 16849 Stratigraphic phase: XXVIII	Context: 977ne Weight: 14.6g
Special find no: 10603 Stratigraphic phase: XXVI	Context: 1101nw Weight: 342.0g	Special find no: 17490 Stratigraphic phase: XXIV	Context: 1170se Weight: 164.0g
Special find no: 10575 Stratigraphic phase: XXIV	Context: 1170nw Weight: 266.4g	Special find no: 17391 Stratigraphic phase: XXII	Context: 1172se Weight: 496.2g
Special find no: 17463 Stratigraphic phase: XVIII	Context: 1175nw Weight: 16.0g	Special find no: 17272 Stratigraphic phase: XVIII	Context: 1175se Weight: 21.6g
Special find no: 17275 Stratigraphic phase: XVIII	Context: 1175nw Weight: 55.1g	Special find no: 17273 Stratigraphic phase: XVIII	Context: 1175nw Weight: 34.0g
Special find no: 10646 Stratigraphic phase: XXXVI	Context: 1206ne Weight: 124.0g	Special find no: 17500 Stratigraphic phase: XVI	Context: 1293nw Weight: 13.5g
Special find no: 17441 Stratigraphic phase: XVI	Context: 1293sw Weight: 77.6g	Special find no: 10659 Stratigraphic phase: XXXVI	Context: 1294se Weight: 19.5g
Special find no: 17317 Stratigraphic phase: XVII	Context: 1340sw Weight: 55.9g	Special find no: 17962 Stratigraphic phase: XV	Context: 1493se Weight: 62.9g
Special find no: 175?? Stratigraphic phase: XII	Context: 1496 Weight: 361.5g	Special find no: 17608 Stratigraphic phase: XII	Context: 1496 Weight: 144.0g

Metal-working Residues

Special find no: 17487 Stratigraphic phase: XII	Context: 1496sw Weight: 89.9g	Special find no: 17572 Stratigraphic phase: XIII	Context: 1502nw Weight: 9.5g
Special find no: 17569 Stratigraphic phase: XIII	Context: 1542nw Weight: 0.8g	Special find no: 17565 Stratigraphic phase: XIII	Context: 1600se Weight: 1.5g
Special find no: 17552 Stratigraphic phase: X	Context: 1615se Weight: 38.1g	Special find no: 17566 Stratigraphic phase: VIII	Context: 1616sw Weight: 12.2g
Special find no: 17570 Stratigraphic phase: IX	Context: 1693 Weight: 9.1g	Special find no: 17567 Stratigraphic phase: ?	Context: 1996se Weight: 28.1g

4.3 Non-diagnostic slags and residues

There was only one non-diagnostic residue present – cinder. The absence of identified fragments of hearth lining, i.e. the fired clay walls of a smithing hearth, is interesting and may indicate that clay-lined hearths were not used for metal-working. Cinder is a high-silica slag formed by a high-temperature reaction between silica and ferruginous material. It can be ascribed to either the non-diagnostic slags or the diagnostic slags depending on its iron content and morphology. A total of 31.9g of

cinder was recovered from ASW2's structural periods F, G and I. The earliest fragment was recovered from structural phase I7, dating to between c. 200 and 300 BC. This category of metal-working residues consisted of black, highly vesicular material. It could not be definitely ascribed to any particular process, although it was probably generated by iron-smithing activities since it was found in association with smithing slag in a number of cases.

Special find no: 2709 Stratigraphic phase: XCV	Context: 294ne Weight: 12.6g	Special find no: 2736 Stratigraphic phase: XCII	Context: 371nw Weight: 1.8g
Special find no: 2073 Stratigraphic phase: XCIII	Context: 306se Weight: 6.7g	Special find no: 5966 Stratigraphic phase: XCI	Context: 386nw Weight: 7.9g
Special find no: 2538 Stratigraphic phase: XCV	Context: 352nw Weight: 10.4g	Special find no: 10577 Stratigraphic phase: XCI	Context: 413nw Weight: 6.8g
Special find no: 2688 Stratigraphic phase: XCII	Context: 365 Weight: 12.7g	Special find no: 16618 Stratigraphic phase: XXXV	Context: 837ne Weight: 5.7g
Special find no: 2682 Stratigraphic phase: XCII	Context: 365nw Weight: 11.1g	Special find no: 17089 Stratigraphic phase: XXVIII	Context: 977ne Weight: 3.0g

4.4 Non-ferrous diagnostic residues

A number of iron-smithing slags also contained evidence of copper-alloy working in the form of corroded copper alloy. It is assumed that the smith worked both iron and copper in the same hearth. A total of 199.2g of copper-alloy working residues was recovered from the excavation at ASW2. These were mostly similar in appearance to the iron-smithing slags (dense and greyish black) but contained corroded copper-alloy fragments. Some were pale in colour and light, but showed signs of corroded copper alloy. One fragment (sf 6601) was very dense and appeared to contain a significant amount of uncorroded metal. The earliest example (sf 632) was

found in structural phase G4 and dates to between the first century BC and the first century AD. It is interesting to note that, while the majority of these residues were found incorporated into old land surfaces, a number were recovered from the fills of pits, slots and wells. By contrast, the earliest copper-alloy objects at the site were found in structural phase J3 and date to c. 400 BC. Evidence for copper-alloy working was also recovered from Deraniyagala's 1969 sondage AG at the Citadel (Deraniyagala 1972: 145). Residues were found in period 3A (ibid.), and fragments of residues adhering to crucibles were found in periods 4A and 4B (ibid.: 97–9).

Special find no: 399 Stratigraphic phase: CIII	Context: 28nw Weight: 3.1g	Special find no: 5436 Stratigraphic phase: XCV	Context: 394sw Weight: 30.0g
Special find no: 173 Stratigraphic phase: XCVI	Context: 63nw Weight: 30.4g	Special find no: 6601 Stratigraphic phase: XCI	Context: 406sw Weight: 22.5g
Special find no: 2325 Stratigraphic phase: XCV	Context: 284 Weight: 51.2g	Special find no: 6590 Stratigraphic phase: LXXXVIII	Context: 426ne Weight: 36.2g
Special find no: 6043 Stratigraphic phase: XCII	Context: 365ne Weight: 28.9g	Special find no: 15116 Stratigraphic phase: LXXXIII	Context: 632ne Weight: 20.5g
Special find no: 2763 Stratigraphic phase: XCV	Context: 368nw Weight: 4.4g		

4.5 Crucible fragments

Crucibles are ceramic vessels used for melting copper alloy, usually evidenced by intense vitrification and slagging. Fragments may have entrapped particles of metal adhering to the surface of the crucible. Eighteen fragments of crucibles weighing a total of 580.9 grams were recovered from trench ASW2. These fragments of pottery all showed evidence of heavy firing on the outside, such as vitrification, but none bore any trace of metal residue. In particular, there were two larger fragments which gave an indication of the size of crucible being used. Sf 10598 was approximately half of a slightly dished, heavy-bottomed crucible, about 6.6 cm in diameter, 3.4 cm deep and 2.1 cm thick at the base. Blackening around the rim, and the thickness of the base, would suggest that this crucible was heated from above. Sf 960A was the bottom part of a crucible, about 6 cm in diameter, with walls 1 cm thick. The upper parts had been broken off, either to remove the contents or after it was discarded. A further fragment, sf 958, had been subjected to intense heat after being broken. The earliest

example, sf 10598, was recovered from structural phase 11, dating to between c. 300 and 400 BC. Crucible fragments were also recovered from structural periods F, C, D & E, B and A, all incorporated into old land surfaces or packing. As mentioned above (section 4.4), crucibles with residues of copper-alloy working were recovered from periods 4A and 4B at Citadel sondage AG (Deraniyagala 1972: 97–9). Similar crucibles have also been recovered from Nasik (Sankalia and Deo 1955) and Ujjain (Banerjee 1965: 159, 203). It is also noteworthy to record that, while excavating Late Anuradhapura-period wattle and daub structures above Buildings A and B in the Citadel, Paranavitana found plumbago-coated crucibles (Paranavitana 1936: 3). Although some were only 4 inches in height, a complete specimen measured 10 inches (*ibid.*). As noted in Volume I, Chapter 2, plumbago – or rather graphite or black lead – is widely found within the Precambrian crystalline rocks of Sri Lanka and has been mined extensively since the 1850s (Cooray 1984: 232).

Special find no: 956	Context: 4nw
Stratigraphic phase: CXIV	Weight: 24.0g
Special find no: 958	Context: 4ne
Stratigraphic phase: CXIV	Weight: 7.3g
Special find no: 12	Context: 9
Stratigraphic phase: CVI	Weight: 13.5g
Special find no: 957	Context: 25ne
Stratigraphic phase: XCVIII	Weight: 10.8g
Special find no: 844	Context: 26sw
Stratigraphic phase: CIV	Weight: 50.3g
Special find no: 8665	Context: 173sw
Stratigraphic phase: XCV	Weight: 22.5g
Special find no: 1674	Context: 256se
Stratigraphic phase: XCV	Weight: 9.3g
Special find no: 6128	Context: 305sw
Stratigraphic phase: XCIII	Weight: 8.9g
Special find no: 8461	Context: 327ne
Stratigraphic phase: XCV	Weight: 60.7g

Special find no: 8659	Context: 332se
Stratigraphic phase: XCV	Weight: 11.1g
Special find no: 8661	Context: 363
Stratigraphic phase: XCIII	Weight: 4.5g
Special find no: 8663	Context: 364ne
Stratigraphic phase: XCII	Weight: 16.9g
Special find no: 8664	Context: 364ne
Stratigraphic phase: XCII	Weight: 22.2g
Special find no: 2782	Context: 365nw
Stratigraphic phase: XCII	Weight: 23.7g
Special find no: ?	Context: 960
Stratigraphic phase: XXX	Weight: 58.8g
Special find no: 16837	Context: 961
Stratigraphic phase: XXX	Weight: 28.3g
Special find no: 10598	Context: 1125
Stratigraphic phase: XXIII	Weight: 72.3g
Special find no: ?ml1925	Context: 12
Stratigraphic phase: CVIII	Weight: 31.7g

4.6 Moulds

Two small moulds were recovered during the excavations at trench ASW2. Special find 166, a small double-sided granite mould, was recovered from stratigraphic phase XCV during the cleaning of the centre-point pillar in the centre of the trench. Both sides of the mould have a flat-bodied, circular indentation surrounded by a register of dots fed by a V-shaped channel. One side bears, in reverse, the inscription *vacadatsa* and the other, also in reverse, the inscription *vacadataha*. Both inscriptions can be read as 'of (or belonging to) Vatsa Datta'. The final syllable in both instances represents the genitive case, but with a slight dialectic difference. Although the mould was recovered from disturbed levels, it may be assigned to between the second and first centuries BC (Coningham *et al.* 1996: 85). The purpose of the double-sided mould was presumably for issuing metal medallions as tokens or

tags. Similar moulds, albeit of unknown date, have been recovered from southern Sri Lanka (Bopearachchi and Wickremesinhe 1999: 111), in addition to the well-known corpus from Sirkap, Taxila (Marshall 1951: 507).

The second mould (sf 6963) is damaged, but it is double-sided and manufactured out of a small slab of limestone. It was recovered from stratigraphic phase LXXXI within structural period G and can thus be attributed a date of between c. the first quarter of the third century cal. BC and the latter half of the first century cal. AD. The mould bears two separate circular grooves on one side, decorated with circular indentations at intervals, fed by a single V-shaped channel. The reverse has two separate, smooth circular grooves fed by a single V-shaped channel. The surviving groove has a small V-shaped indentation, perhaps to form a small hook or lip to the object cast. It seems probable that this

was a mould for producing moulded earrings or rings. Again, similar examples have been recovered from southern Sri Lanka (Bopearachchi and Wickremesinhe 1999: 111–12), in addition to the well-known corpus from Sirkap, Taxila (Marshall 1951: 507).

Both moulds suggest that the casting of small, detailed, presumably gold or silver objects was practised at the site by around the second century BC. If the objects were of gold or silver, it is likely that the precious metals were imported as they occur only in extremely minute concentrations within Sri Lanka (Cooray 1984: 212). A circular or oval terracotta mould was recovered

Special find no: 166 Context: 346ne
Stratigraphic phase: XCV Weight: 135g
Description: Double-sided token/tag mould with V-shaped channel.
Material: Granite.
Dimensions: 3.9 x 3.4cm; 2.6cm thick.

4.7 Conclusion

There is evidence for iron smithing scattered throughout the stratigraphic sequence, save for the first two structural phases of K, but there is no evidence that iron smelting was carried out in the vicinity of the excavation. In general the quantities of smithing debris are small (less than 1 kg), which is insufficient to argue for iron smithing being practised in the buildings or areas that were excavated. These quantities are considered (from a European perspective) to be background levels, i.e. lumps and fragments of slag that become incorporated in the deposits. There is also a severe problem of residuality, in that slag is very robust and does not (normally) degrade. It can therefore be readily re-deposited, and there would be no archaeological evidence to indicate whether the slag is contemporary with, or earlier than, a particular stratigraphic sequence. We can however follow Mariani's lead when approaching such problems (Mariani 1984: 118):

One may assume that they do not indicate the precise boundaries of the craftsmen's quarters; they mark rather a generic location, since previously thickly concentrated waste materials have leached to the surface and spread all around. The presence or absence of these elements certainly indicate the kind of craft activities performed in the area.

Evidence for re-deposition must, of course, be sought in other artefact types. It is therefore possible to conclude that low levels of smithing were practised throughout the occupation of the site, but with some periods that may indicate increased activity, or activity nearer to the area excavated, resulting in increased deposition of slags, e.g. structural period B, D and phases G4 and G5. It should be noted that hammerscale, a micro-residue indicative of smithing areas, was not recovered. This further supports the hypothesis that the smithing was being practised elsewhere. There is, therefore, a question as to where the smelting was being carried out during this time. Little intensive surveying has been done in the region, and it may be possible to hypothesize that much of this was

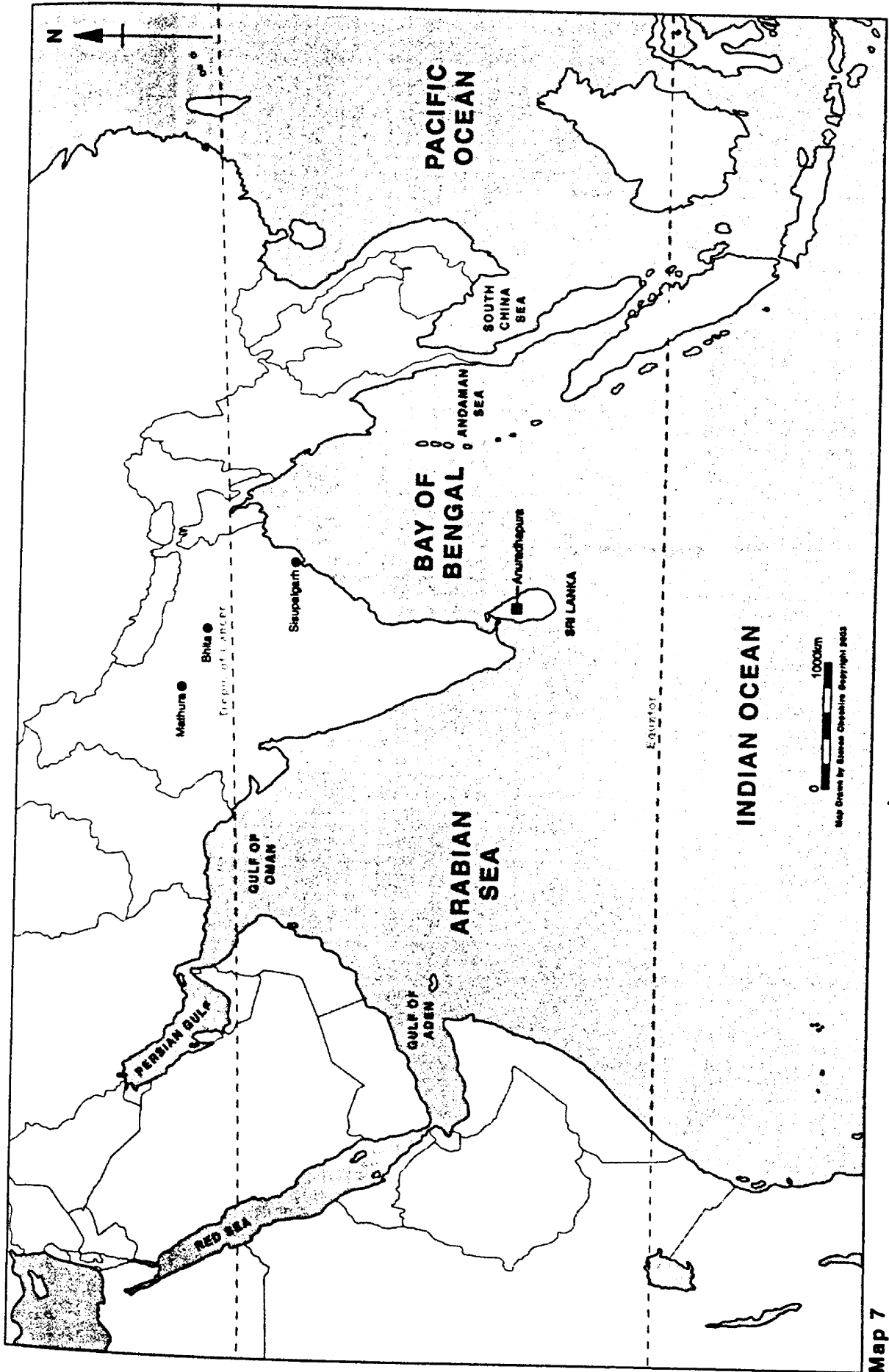
from period 4A of Deraniyagala's excavation at AG (Deraniyagala 1972: 149) (see Chapter 2: Coins). Bearing the impressions of square and circular punch-marked coins on both sides, it was interpreted by the late M.H. Sirisoma as a forger's mould (Sirisoma 1972: 150). As such terracotta moulds have been found at a number of Early Historic city sites such as Sisupalgarh, Mathura, Taxila and Bhita, it may be possible to suggest that their finds represent the location of official mints rather than forgers' mints (Coningham 1994a: 265–6).

Special find no: 6963 Context: 487ne
Stratigraphic phase: LXXXI Weight: 70g
Description: Double-sided ring mould with V-shaped channel.
Material: Limestone.
Dimensions: 5.3 x 4.5cm; 2.1cm thick.
[Plate 4.1]

carried out at village level and was then brought for smithing within the urban centre. Juleff excavated a number of smelting furnaces in the Samanawewa region of Central Province, three of which gave Early Historic dates (Juleff 1998). Perhaps such production was centred there and then diffused throughout the island.

There was also evidence of copper-alloy working in the form of a number of crucible fragments. XRF analyses of these indicate the melting of copper or leaded copper. The absence of other alloying elements, notably tin, is significant. The quantity of the evidence is small when compared to the evidence recovered from ancient Ruhuna (Weisshaar and Wijeyapala 1993), where hearths or furnaces and crucibles were recovered. Although the excavators argue for copper smelting, this is probably a misuse of terminology, since they provide no evidence for smelting, e.g. in the form of ores or slags. Thus it is hoped that the assemblage recovered from ASW2 will add to the growing corpus of data on metal-working and its residues so that a fuller understanding of the source, demand and supply networks may be achieved.

Such an understanding will need to evaluate the tantalizing evidence of written inscriptions, and their divisions of metalworkers. The earliest references to metalworkers are found in a number of Early Brahmi inscriptions recording the donation of caves to Buddhist monks (Paranavitana 1970: xcvi). These donations, dating from between the third century BC and the first century AD, only record five smiths out of a total of 1,234 inscriptions: one was a goldsmith; another the son of a goldsmith; two were coppersmiths; and another a tinsmith (ibid.). A later textual reference to such metalworkers in the *Mahavamsa* appears to subdivide them into three main groups: goldsmiths, coppersmiths and blacksmiths (Geiger 1960: 103).



Map 7

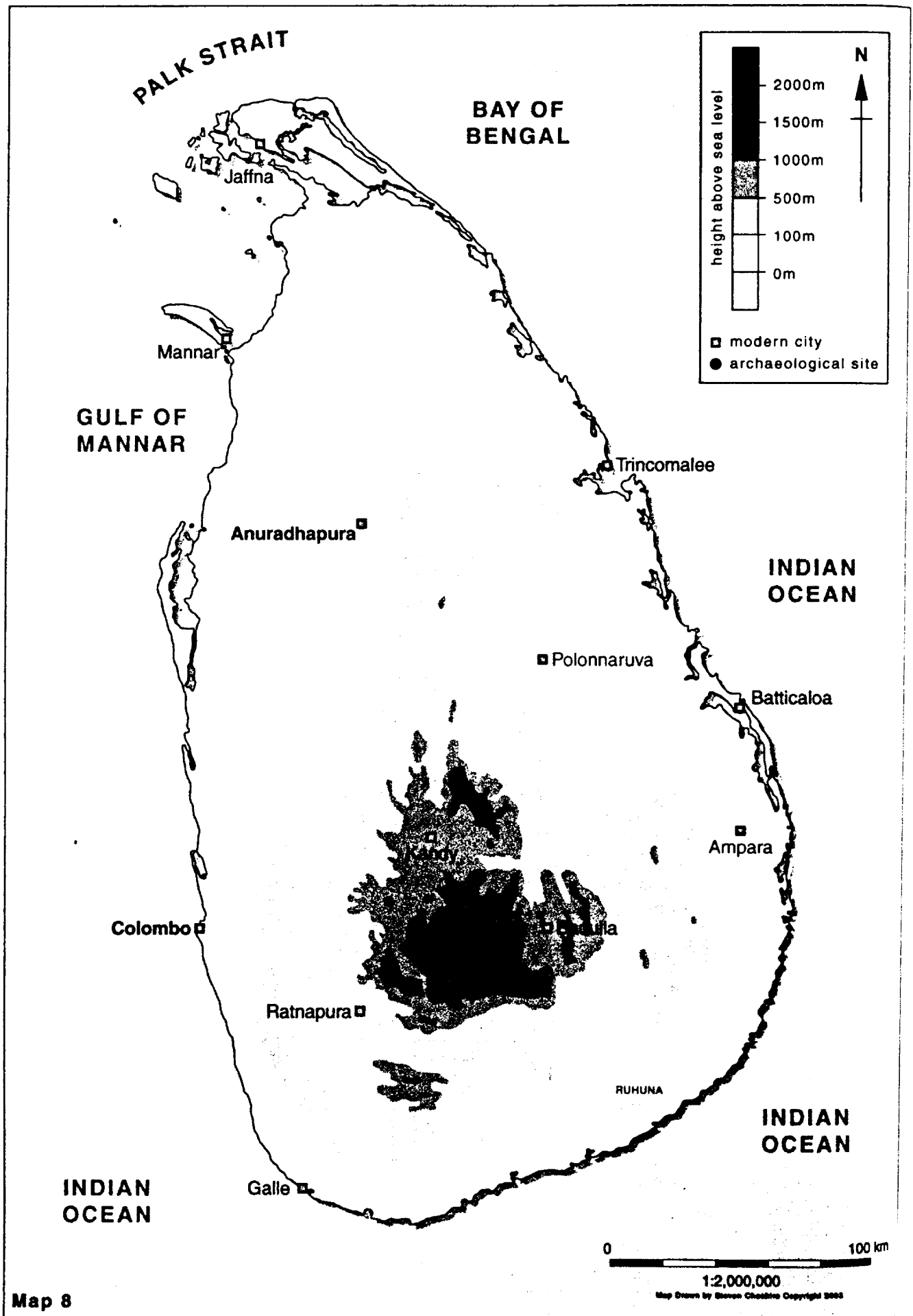


Table 4.1 Metal-working residues

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Ferrous slags & residues											
	weight (g)	2400	5796.1	10073.4	540	1798.4	68.6	3468.4	753.5	9.1	24907.6
Non-diagnostic slags & residues											
	weight (g)				8.5	14.7		8.7			31.9
Non-ferrous slags & residues											
	weight (g)		33.5	34.3	28.9	102.5					199.2
Crucible fragments											
	weight (g)	31.3	106.8	103.6	179.8			159.4			580.9
Moulds											
	number			1		1					2
Total											
	number			1		1					2
	weight (g)	2431.3	5936.4	10211.3	757.2	1915.6	68.6	3636.5	753.5	9.1	25719.5



Limestone goldsmith's mould (sf 6963)



Limestone goldsmith's mould (sf 6963)

Plate 4.1: Metal-working objects

CHAPTER 5

GLAZED CERAMICS

Philip Seely, Sheila Canby and Robin Coningham

5.1 Introduction

Sri Lanka is situated at the centre of the maritime Silk Route, standing betwixt the West Asian and East Asian worlds. It possesses many raw resources, such as timber, spices, ivory and semi-precious stones, and is in addition one of the foremost pilgrimage centres for Theravada Buddhists. These factors, in combination with the large excess surplus available to the island's mediaeval elites ruling from Anuradhapura, led to the creation of a strong market for foreign luxury imports and glazed ceramics. This acquisitive market appears to have reached a peak at the turn of the first millennium AD, when we find the full array of West and East Asian glazed ceramics at the Citadel of Anuradhapura: Sasanian-Islamic blue glazed wares, lustre wares, lead-glazed wares and tin-glazed wares from Iraq; imitation lustre wares from Khurasan in eastern Persia; Changsha painted stonewares from central China, Yue green wares from South China, and Xing and Ding wares from North China.

In this chapter we will examine the date and provenance of all 338 glazed ceramics recovered from trench Anuradhapura Salgaha Watta 2. Table 5.1 illustrates the four main categories of glazed ceramics and their broad periodized phasing, making it clear that their presence is a relatively late phenomenon building on trade networks established centuries earlier. This chapter will discuss the different categories of pottery recovered and provide a full catalogue of the finds. In addition it will evaluate how the presence of certain types of glazed pottery in the sequence can help us understand the economic history of Anuradhapura and its place in the commerce of the Indian Ocean (Maps 9 and 10).

5.2 West Asian ceramics

As is clear from Table 5.2, West Asian glazed ceramics account for the majority of glazed ceramics from ASW2 – 306 sherds out of a total count of 338. The highest concentration of sherds is found in period C, D & E and in period B. A further 14 sherds were recovered from the mixed modern deposits of period A, and 8 sherds from periods F and G. The latter are the earliest examples of glazed ceramics at the site and will be further discussed in sections 5.2.6 (The Sasanian-Islamic wares) and 5.6 (Dating the glazed ceramics). The overall collection dates to between Sasanian-early Islamic times or perhaps even earlier, the Parthian period, and the 11th century AD.

5.2.1 Lustre ware

The collection contains a significant number of lustre-painted sherds. The body is a smooth yellow earthenware and is coated in a white tin glaze, with over-glaze painting in lustre. The lustre comes in various hues: amber, yellow, ruby, red-brown, light brown and dark brown. Usually the sherds show monochrome lustre painting, but there are a number of polychrome combinations. Designs are non-figural, as far as may be judged, and dots, circles and stripes are the main motifs. The main vessel type they seem to represent is the flared conical bowl. Through their stylistic features and their yellow earthenware body material they can be confidently assigned to the Abbasid group from Iraq (and possibly Iran too) and dated to the ninth and tenth centuries AD. As demonstrated by Table 5.2 (The West Asian Ceramics), a total of 33 sherds of this ware was recovered from ASW2: 6 from period B and a further 27 from the fills of the robber pitting phase C, D & E. Similar sherds of lustre ware have also been recovered in Sri Lanka, notably from Mantai (Carswell and Prickett 1984: 64). Numerous finds of this type have been found at Siraf in the Gulf (Whitehouse 1968: 15; Tampoe 1989: 36) and some examples on the East African coast at Kilwa (Chittick 1974: 305).

Special find no: 348 Context: 9se
Stratigraphic Phase: CVI Weight: 1g
Description: Wall sherd of bowl: interior bears designs in brown lustre with subsidiary painting in amber lustre; a small stripe of amber lustre on exterior; white tin glaze.
Technique: Polychrome lustre; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 0.6 - 0.4cm thick.
Date: 9th century Provenance: Iraq

Special find no: 353 Context: 27sw
Stratigraphic Phase: C Weight: 4g
Description: Wall sherd of bowl: white tin glaze; one side with faded brown lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 156 Context: 41sw
Stratigraphic Phase: C Weight: 4g
Description: Wall sherd of bowl; white tin glaze; outer side bears two hues of lustre - brown and amber - with a design of small 'v's filling most of the surface; inner side bears amber lustre spots and a wide amber lustre band.
Technique: Polychrome lustre pottery; white tin glaze.

Material: Yellow earthenware.
Dimensions: 3.6 x 2.9cm; 0.5cm thick.
Date: 9th century Provenance: Iraq

Special find no: 109 Context: 24
Stratigraphic Phase: C Weight: 13g
Description: Base and foot ring sherd of bowl; white tin glaze on all surfaces; thick lustre stripes above foot; vessel interior bears a design of thick lustre circle and small lustre stripes and specks within.
Technique: Lustre pottery; white tin glaze.
Material: Yellowish earthenware; flinty.
Dimensions: 5 x 3cm; foot height 0.6cm.
Date: 9th - 10th century Provenance: Iraq
[Plate 1.1; Fig. 5.1]

Special find no: 70 Context: 24
Stratigraphic Phase: C Weight: 2g
Description: Wall sherd of bowl; white tin glaze; amber lustre designs on interior; exterior bears chocolate lustre designs.
Technique: Polychrome lustre; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.4cm thick.
Date: 9th century Provenance: Iraq

Special find no: 148 Context: 47
Stratigraphic Phase: XCVI Weight: 3g
Description: Wall sherd; white tin glaze; outer side bears faded brown lustre stripes.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 8039 Context: 251sw
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; glazed surface is lost except in one side where half of it remains; white tin glaze with deteriorated remnants of lustre painting.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4 x 2cm; 0.5-0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1566 Context: 266se
Stratigraphic Phase: XCV Weight: 2g
Description: Tapered everted rim sherd of bowl; white tin glaze; inner side with ruby lustre stripes; exterior with ruby lustre stripes.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.2 x 2.8cm; 0.5cm thick.
Date: 9th century Provenance: Iraq
[Plate 1.1]

Special find no: 6313 Context: 394sw
Stratigraphic Phase: XCV Weight: 0.2g
Description: Small wall sherd; white tin glaze; one side seems to bear trace of amber lustre.
Technique: White tin glaze pottery; lustre.
Material: Yellow earthenware.
Dimensions: Width 0.8cm; 0.2cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 6311 Context: 394sw
Stratigraphic Phase: XCV Weight: 3g
Description: Rim sherd; white tin glaze with fresh lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellowish earthenware.
Dimensions: 1.9 x 1.5cm; 0.3cm thick.
Date: 9th - 10th century? Provenance: Iraq

Special find no: 5143 Context: 88ne
Stratigraphic Phase: XCV Weight: 2g
Description: Rim or wall sherd of narrow curvature; interior unglazed; exterior seems to bear white glaze with remnants of red-brown lustre. Pot?
Technique: Lustre pottery; white tin glaze (?)

Material: Greyish earthenware (?)
Dimensions: 2 x 1.5cm; 0.4cm thick.
Date: 9th - 10th century(?) Provenance: Iraq(?)

Special find no: 2777 Context: 296ne
Stratigraphic Phase: XCV Weight: 0.6g
Description: Body sherd; both sides bear white glaze.
Technique: Lustre pottery; white tin glaze.
Material: Yellowish earthenware.
Dimensions: 1.1 x 1.1cm; 0.5cm thick.
Date: 9th - 10th century? Provenance: Iraq

Special find no: 2351 Context: 285
Stratigraphic Phase: XCV Weight: 0.4g
Description: Base or wall sherd of bowl; white tin glaze; interior with lustre painting, and a speck of lustre on small area of exterior glaze.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: /
Date: 9th - 10th century Provenance: Iraq

Special find no: 2271 Context: 103nw
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd; white tin glaze; both sides bear amber lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 2247 Context: 78se
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; white tin glaze; both sides with amber lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 2246 Context: 78se
Stratigraphic Phase: XCV Weight: 0.6g
Description: Wall sherd of bowl; white tin glaze; inner side covered by amber lustre; a darker hue of lustre on exterior - not necessarily polychrome.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: Width 1cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1877 Context: 332se
Stratigraphic Phase: XCV Weight: 4g
Description: Angled wall sherd; white tin glaze; both sides with amber lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: Width 3cm; 0.4-0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1818 Context: 320ne
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd of bowl; white tin glaze; exterior bears thick tawny lustre stripes; interior bears amber lustre. Probably polychrome lustre.
Technique: Lustre pottery; white tin glaze. (polychrome lustre)
Material: Yellow earthenware.
Dimensions: Width 2cm.
Date: 9th century Provenance: Iraq

Special find no: 1783 Context: 320ne
Stratigraphic Phase: XCV Weight: 0.6g
Description: Wall sherd; white tin glaze; one side with amber lustre painting, the other with orange-yellow lustre.
Technique: Polychrome lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 0.4cm thick.
Date: 9th century Provenance: Iraq

Special find no: 1733 Context: 320ae
Stratigraphic Phase: XCV Weight: 4g
Description: Wall sherd of bowl; white tin glaze; outer side bears two hues of lustre - brown and amber - with a design of small 'v's filling most of the surface; inner side bears amber lustre spots and a wide amber lustre band.
Technique: Polychrome lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2cm; 0.5cm thick.
Date: 9th century Provenance: Iraq

Special find no: 1667 Context: 285ae
Stratigraphic Phase: XCV Weight: 5g
Description: Base and foot ring sherd; white tin glaze, exterior above foot bears lustre stripes; bowl.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.5 x 2cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1552 Context: 255ae
Stratigraphic Phase: XCV Weight: 6g
Description: Tapered, everted rim sherd; white tin glaze with fresh lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellowish earthenware.
Dimensions: 3.8 x 3.8cm; 0.4cm thick.
Date: 9th - 10th century? Provenance: Iraq
[Plate 1.1; Fig. 5.1]

Special find no: 1341 Context: 87sw
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd of bowl; white tin glaze; interior bears amber lustre designs; a small area of amber lustre on exterior.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1320 Context: 88ae
Stratigraphic Phase: XCV Weight: 2g
Description: Base and foot sherd of bowl; white tin glaze; vessel interior surface largely covered by yellow lustre; outer area bears faded trace of yellow lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1319 Context: 88ae
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd of bowl; white tin glaze; inner side with brown lustre stripes; outer side seems to bear faded brown lustre stripes with a small area red-brown (accidental). Probably monochrome lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 1314 Context: 88
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd of bowl; white tin glaze; interior with amber lustre stripe, exterior with two chocolate lustre stripes.
Technique: Polychrome lustre; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.4cm thick.
Date: 9th century Provenance: Iraq

Special find no: 760 Context: 86ae
Stratigraphic Phase: XCV Weight: 4g
Description: Tapered, everted rim sherd of bowl; finely cracked white glaze; inner side bears amber lustre decoration.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3 x 2.5cm; 0.5cm thick.
Date: 9th/10th century Provenance: Iraq
[Fig. 5.1]

Special find no: 653 Context: 181
Stratigraphic Phase: XCV Weight: 2g
Description: Tapered rim sherd; white tin glaze, one side bearing lustre painting.
Technique: Lustre tin-glaze pottery.
Material: Yellow earthenware.
Dimensions: Width 1cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 604 Context: 56ae
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd; white tin glaze; inner side bears very faded yellow lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.5-0.4cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 603 Context: 56ae
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; white tin glaze; one side largely covered with yellow lustre, the other bearing yellow lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: Width 1.3cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 429 Context: 134
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd; white tin glaze; one side with faded yellow lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: Width 2cm; 0.4-0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 355 Context: 111sw
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; white tin glaze; inner surface bears faded yellow lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 0.4-0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 274 Context: 88ae
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; white tin glaze; one side with yellow lustre designs.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1cm; 0.4-0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

Special find no: 214 Context: 74sw
Stratigraphic Phase: XCIV Weight: 4g
Description: Tapered rim sherd of bowl; white tin glaze; both sides bear remnants of lustre.
Technique: Lustre pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq

5.2.2 'Imitation' lustre ware

In contrast to the relatively large collection of lustreware sherds at ASW2 there is only a single sherd of what Wilkinson has termed 'imitation' lustre ware (Wilkinson 1973: 181). This ware was produced in the eastern Iranian world and is especially well known from the site of Nishapur (ibid.). The ware can be produced by either of two techniques. The first involves the painting of the design on to an opaque white glaze, while the second involves the painting of designs on to a white englobe which is then sealed by the application of a clear lead glaze. Occasionally a little tin is added to make the glaze

more milky. The glaze of sf 746 typically has a slight yellow stain in the vicinity of the pigment slip. According to Wilkinson, this ware is not a successful imitation as there is no trace of a metallic sheen or iridescence (*ibid.*), however it was clearly popular in the region of Khurasan. As with most of its 'real' counterpart at ASW2, the sherd appears to have belonged to a flared conical bowl. It can be assigned to Khurasan, perhaps even to the kilns in the vicinity of Nishapur, and dated to the ninth and tenth centuries AD. Its presence at Anuradhapura is somewhat surprising, as it has not previously been perceived as a luxury export ware. There is no reference to similar sherds having previously been found in Sri Lanka. The authors are extremely grateful to Ralph Pinder-Wilson, formerly of the British Museum, for the identification of this ware.

Special find no: 746 Context: 26se
Stratigraphic Phase: CIV Weight: 1g
Description: Tapered everted rim of bowl; interior bears designs in various shades of brown pigment; small stripes of dark and lighter brown pigment on exterior; clear lead glaze.
Technique: Monochrome pigment; clear lead glaze.
Material: Yellow earthenware.
Dimensions: 2.9 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Khurasan
[Plate 1.1]

5.2.3 White tin-glazed ware

Another sizeable group, these sherds have a white tin glaze coating a smooth yellow earthenware body. Significantly, there is one with some splashed green colouring and one with some dark blue (cobalt) in-glaze colouring. Cobalt in-glaze colouring is only one variant, as turquoise, bichrome and polychrome are also found (Tampoe 1989: 35). The vessel type they seem to represent is the conical, flared bowl. Like the lustre tin-glazed group, they are also probably Abbasid wares, ninth to tenth century AD in date, and attributed to Iraq and possibly Iran. A total of 78 sherds of white tin-glazed ware were recovered from trench ASW2. Of these, 52 sherds were recovered from period C,D & E, 25 from period B and 1 from period A. This ceramic category is also found at Mantai (Carswell and Prickett 1984: 64) and it is interesting to note that, although examples of tin-glazed wares with cobalt blue decoration have been found at both Mantai (*ibid.*) and ASW2 (sfs 240 and 1323), neither site has yielded an example of tin-glazed frit-bodied ware of the middle to late twelfth century AD. A number of sherds of white tin-glazed ware were recovered from Kilwa (Chittick 1974: 303) and Siraf (Whitehouse 1968: 15; Tampoe 1989: 33).

Special find no: 351 Context: 4sw
Stratigraphic Phase: CXIV Weight: 9g
Description: Base and foot ring sherd; both sides bear white tin glaze; outer side of glazed base has a number of small pores or air holes.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.2 x 1.7cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 2258 Context: 17se
Stratigraphic Phase: CXIII Weight: 7g
Description: Body sherd; both sides bear white tin glaze; inner side bears concretion.

Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.1 x 2.5cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 2257 Context: 17se
Stratigraphic Phase: CXIII Weight: 3g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 2cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1344 Context: 5nw
Stratigraphic Phase: CXII Weight: 3g
Description: Tapered rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.8 x 1.7cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Fig. 5.1]

Special find no: 354 Context: 5ne
Stratigraphic Phase: CXII Weight: 6g
Description: Body sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.1 x 2.4cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 762 Context: 15nw
Stratigraphic Phase: CXI Weight: 7g
Description: Body sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.8 x 2.2cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 761 Context: 9nw
Stratigraphic Phase: CVI Weight: 7g
Description: Tapered, everted rim sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.7 x 2.4cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Fig. 5.1]

Special find no: 1323 Context: 9se
Stratigraphic Phase: CVI Weight: 1g
Description: Everted, tapered rim sherd; both sides bear white tin glaze; interior has cobalt splashes.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.8 x 1.7cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Plate 1.1]

Special find no: 1336 Context: 26se
Stratigraphic Phase: CIV Weight: 7g
Description: Body and everted, tapered rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 5 x 3.4cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Fig. 5.1]

Special find no: 1335 Context: 26se
Stratigraphic Phase: CIV Weight: 4g
Description: Tapered, everted rim sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.5 x 2.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Glazed Ceramics

- Special find no: 345 Context: 26sw
Stratigraphic Phase: CIV Weight: 27g
Description: Base and foot ring sherd of wide bottomed bowl; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 6.2 x 4.3cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Fig. 5.1]
- Special find no: 94 Context: 28nw
Stratigraphic Phase: CIII Weight: 5g
Description: Rounded rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4 x 1.9cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2261 Context: 27se
Stratigraphic Phase: C Weight: 12g
Description: Tapered, everted rim sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 3.7cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 1587 Context: 263nw
Stratigraphic Phase: C Weight: 31g
Description: Two sherds forming one piece: tapered, everted rim; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 6 x 5.5cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 1359 Context: 41sw
Stratigraphic Phase: C Weight: 1g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1.1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 1358 Context: 41sw
Stratigraphic Phase: C Weight: 0.3g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1 x 0.8cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 753 Context: 27sw
Stratigraphic Phase: C Weight: 14g
Description: Base and foot ring sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.9 x 3.5cm; 0.9cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 747 Context: 41se
Stratigraphic Phase: C Weight: 7g
Description: Base sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2.1cm; 1.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 176 Context: 41se
Stratigraphic Phase: C Weight: 12g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 6 x 4.4cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Plate 1.1]
- Special find no: 164 Context: 41sw
Stratigraphic Phase: C Weight: 4g
Description: Two body sherds, not one piece; both sides bear fine white tin glaze.
Technique: Pottery; fine white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.6 x 3cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 160 Context: 41sw
Stratigraphic Phase: C Weight: 3g
Description: Two sherds forming one tapered rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.9 x 1.5cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 150 Context: 41nw
Stratigraphic Phase: C Weight: 2g
Description: Tapered rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 1.4cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 125 Context: 41nw
Stratigraphic Phase: C Weight: 10g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.6 x 3.4cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 759 Context: 25nw
Stratigraphic Phase: XCVII Weight: 5g
Description: Base and foot ring sherd of flared bowl; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 5.1 x 5.1cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2262 Context: 83sw
Stratigraphic Phase: XCVI Weight: 10g
Description: Two pieces forming one rounded, everted rim sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 1.5cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2254 Context: 46se
Stratigraphic Phase: XCVI Weight: 8g
Description: Body sherd rounded into disc; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.9 x 2.9cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 889 Context: 47nw
Stratigraphic Phase: XCVI Weight: 4g
Description: Body sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.8 x 2.1cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 8558 Context: 334se
Stratigraphic Phase: XCV Weight: 1g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.7 x 1.3cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

- Special find no: 8501 Context: 311
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3 x 1.8cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 6312 Context: 394sw
Stratigraphic Phase: XCV Weight: 7g
Description: Body sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 3cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 6103 Context: 373se
Stratigraphic Phase: XCV Weight: 14g
Description: Base and foot ring sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.2 x 2.7cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 5651 Context: 394sw
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; both sides bear white tin glaze; outer side has concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 0.8cm; 0.1cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 5649 Context: 313sw
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.6 x 1.4cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 5648 Context: 313sw
Stratigraphic Phase: XCV Weight: 3g
Description: Blunt tapered rim sherd; both sides bear white tin glaze; drill hole? at rim edge.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.8 x 2.6cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 5165 Context: 344sw
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 1.3cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 3166 Context: 325ne
Stratigraphic Phase: XCV Weight: 16g
Description: Tapered everted rim sherd; both sides bear white tin glaze; inner side has concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 3.5cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2695 Context: 294ne
Stratigraphic Phase: XCV Weight: 2g
Description: Thin tapered rim sherd; both sides bear fine white tin glaze.
Technique: Pottery; fine white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.7 x 1.5cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2666 Context: 76se
Stratigraphic Phase: XCV Weight: 8g
Description: Base and foot ring sherd of flared bowl; both sides bear fine white tin glaze.
Technique: Pottery; fine white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.4 x 3.3cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2660 Context: 292ae
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.2 x 1.5cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2620 Context: 292ae
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.6 x 1.5cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2277 Context: 261
Stratigraphic Phase: XCV Weight: 9g
Description: Foot ring and body sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.6 x 2.5cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2276 Context: 261
Stratigraphic Phase: XCV Weight: 3g
Description: Tapered rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 2.1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2274 Context: 99se
Stratigraphic Phase: XCV Weight: 3g
Description: Rim sherd rounded into disc; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.8 x 1.8cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2273 Context: 158nw
Stratigraphic Phase: XCV Weight: 9g
Description: Body sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.7 x 3.6cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2264 Context: 269se
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.2 x 1.5cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 2194 Context: 332ae
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 1.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
- Special find no: 1920 Context: 325ne
Stratigraphic Phase: XCV Weight: 1g

Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.8 x 1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1917 Context: 332se
Stratigraphic Phase: XCV Weight: 1g
Description: Body sherd; both sides bear fine white tin glaze.
Technique: Pottery; fine white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.5 x 1.1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1886 Context: 332se
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear good white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.4 x 2.2cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1882 Context: 332se
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 1.8cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1878 Context: 325se
Stratigraphic Phase: XCV Weight: 23g
Description: Two sherds forming one piece: one body sherd, one rounded rim and body; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 6.1cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1867 Context: 325se
Stratigraphic Phase: XCV Weight: 6g
Description: Rounded rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.8 x 2.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1854 Context: 331se
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; both sides bear even smooth white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 2.1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1671 Context: 256se
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.3 x 2.5cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1662 Context: 285se
Stratigraphic Phase: XCV Weight: 4g
Description: Body sherd rounded into disc; both sides bear white tin glaze; one side has horizontal moulding.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.4 x 2.3cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1321 Context: 107sw
Stratigraphic Phase: XCV Weight: 31g
Description: Base and shallow foot ring sherd of flared bowl; both sides bear white tin glaze with concretion.
Technique: Pottery; white tin glaze.

Material: Yellow earthenware.
Dimensions: 5.3 x 5.1cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1318 Context: 88se
Stratigraphic Phase: XCV Weight: 6g
Description: Body sherd; both sides bear white tin glaze; inner side has concretion.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4 x 2.1cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1167 Context: 92sw
Stratigraphic Phase: XCV Weight: 4g
Description: Rounded rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 2cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 1165 Context: 92sw
Stratigraphic Phase: XCV Weight: 10g
Description: Body sherd; both sides bear white tin glaze; outer side has concretion and horizontal moulding.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.1 x 3.1cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 765 Context: 121se
Stratigraphic Phase: XCV Weight: 13g
Description: Lower body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.5 x 2.8cm; 1cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 763 Context: 103sw
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.1 x 1.6cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 758 Context: 111sw
Stratigraphic Phase: XCV Weight: 6g
Description: Body sherd; both sides bear deteriorated white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 2.5cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 752 Context: 107nw
Stratigraphic Phase: XCV Weight: 34g
Description: Base and foot ring sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 5.7 x 4.2cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran
[Fig. 5.1]

Special find no: 751 Context: 78se
Stratigraphic Phase: XCV Weight: 4g
Description: Rounded, everted rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.3 x 2cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 750 Context: 14se
Stratigraphic Phase: XCV Weight: 4g
Description: Rounded rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.

Material: Yellow earthenware.
Dimensions: 2.6 x 2.3cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 729 Context: 214ne
Stratigraphic Phase: XCV Weight: 1g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.9 x 1.2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 714 Context: 211ne
Stratigraphic Phase: XCV Weight: 4g
Description: Tapered, everted rim sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.5 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 674 Context: 190nw
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.7 x 1.5cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 668 Context: 182se
Stratigraphic Phase: XCV Weight: 0.8g
Description: Body sherd; both sides bear fine white tin glaze.
Technique: Pottery; fine white tin glaze.
Material: Yellow earthenware.
Dimensions: 1.2 x 1.2cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 651 Context: 181
Stratigraphic Phase: XCV Weight: 4g
Description: Tapered, everted rim sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.2 x 1.8cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 461 Context: 107nw
Stratigraphic Phase: XCV Weight: 9g
Description: Tapered, everted rim sherd of bowl; both sides bear fine white tin glaze.
Technique: Pottery; fine, white tin glaze.
Material: Yellow earthenware.
Dimensions: 3.8 x 2.2cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 408 Context: 133se
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.3cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 347 Context: 43ne
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 304 Context: 111sw
Stratigraphic Phase: XCV Weight: 2g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2 x 1.8cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 267 Context: 87
Stratigraphic Phase: XCV Weight: 9g
Description: Base and foot ring sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4 x 2.2cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 240 Context: 86ne
Stratigraphic Phase: XCV Weight: 4g
Description: Body sherd; both sides bear white tin glaze; inner side has cobalt splash.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 2.7 x 2.15cm; 0.65cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 227 Context: 86ne
Stratigraphic Phase: XCV Weight: 13g
Description: Base and foot ring sherd of bowl; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Yellow earthenware.
Dimensions: 4.8 x 2.7cm; 1.4cm ring base thickness.
Date: 9th - 10th century Provenance: Iraq and ?Iran

Special find no: 212 Context: 56sw
Stratigraphic Phase: XCV Weight: 1g
Description: Body sherd; both sides bear white tin glaze.
Technique: Pottery; white tin glaze.
Material: Smooth yellow earthenware.
Dimensions: 1.4 x 1.2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Iraq and ?Iran

5.2.4 Lead-glazed wares

This is a limited category. The sherds may bear a clear yellowish glaze, sometimes splashed with green, or alternatively the glazed surface may be entirely green. The green is derived from copper. The body is a yellow or buff earthenware. The main vessel type seems to be a conical bowl. They are not very easy to date, and dates from around the ninth to thirteenth centuries AD should be allowed. Their likely provenance is Iraq and Iran. It is interesting to note that no lead-splashed wares with sgraffiato were recovered from ASW2 and only a single sherd of this ceramic was found at Mantai (Carswell and Prickett 1984: 55). Only 11 sherds of lead-glazed wares were recovered from the trench: 6 from period C, D & E, 4 from period B and 1 from period A. Sherds of lead-glazed wares have also been recovered from Mantai (Carswell and Prickett 1984: 64; Wijeyapala and Prickett 1986: 18), but they are found as far as Kilwa on the East African coast (Chittick 1974: 303). This category has also been found at Siraf (Tampoe 1989: 37).

Special find no: 343 Context: 4nw
Stratigraphic Phase: CXIV Weight: 28g
Description: Rim sherd: one side light green glaze splash on yellowish glaze; other side yellowish glaze, white slip visible below, with green splashes.
Technique: Pottery; slashes of green glaze on yellowish transparent glaze (lead) over white slip.
Material: Pink earthenware.
Dimensions: 6.8 x 6cm; 0.6cm thick.
Date: 9th - 13th century? Provenance: Iraq or Iran
[Plate 1.1]

Special find no: 30118 Context: 9sw
Stratigraphic Phase: CVI Weight: 16g

Description: Base and foot ring sherd; vessel interior bears yellowish glaze splashed with green; exterior, within and without foot ring bears yellowish glaze, with a couple of specks of green.
Technique: Pottery; yellowish transparent glaze (lead) splashed with green over white slip.
Material: Pink earthenware, flinty.
Dimensions: 5 x 2.5cm; 0.6cm thick.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 1138 Context: 9
Stratigraphic Phase: CVI Weight: 7g
Description: Base and foot ring sherd; base interior bears yellowish glaze splashed with green; outer area within and without foot bears yellowish glaze.
Technique: Lead glaze pottery; yellowish transparent glaze, splashed with green, over white slip.
Material: Pink earthenware.
Dimensions: 3 x 1.5cm; 1.4cm foot height.
Date: 9th - 13th century Provenance: Iraq or Iran
[Fig. 5.1]

Special find no: 1176 Context: 16aw
Stratigraphic Phase: CIII Weight: 7g
Description: Body sherd: one side bears yellowish glaze part splashed with green; other side bears partial glaze, yellowish, a white slip beneath.
Technique: Pottery; yellowish transparent lead glaze, splashed with green over white slip.
Material: Pink earthenware, flinty.
Dimensions: 3.5 x 2cm; 0.5cm thick.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 159 Context: 55
Stratigraphic Phase: XCVI Weight: 8g
Description: Base and foot ring sherd; base interior bears yellowish glaze splashed with green; outer area within and without foot bears yellowish glaze with small green splashes.
Technique: Lead glaze pottery; yellowish transparent glaze, splashed with green, over white slip.
Material: Pink earthenware, flinty.
Dimensions: 3 x 2cm; 1cm foot height.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 8602 Context: 128ae
Stratigraphic Phase: XCV Weight: 7g
Description: Body sherd: one side bears yellowish glaze part splashed with green; other side bears partial glaze, yellowish, a white slip beneath, with splashes of green; very abraded.
Technique: Pottery; yellowish transparent lead glaze, splashed with green over white slip.
Material: Pink earthenware.
Dimensions: 4.5 x 3.5cm; 0.5cm thick.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 6257 Context: 313sw
Stratigraphic Phase: XCV Weight: 20g
Description: Base and foot ring sherd; base interior bears yellowish glaze splashed with green; outer area within and without foot bears yellowish glaze.
Technique: Lead glaze pottery; yellowish transparent glaze, splashed with green, over white slip.
Material: Pink earthenware.
Dimensions: 5 x 5cm; 1.2cm foot height.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 1479 Context: 124ae
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd: one side bears yellowish glaze part splashed with green; other side bears glaze, yellowish, a white slip beneath, splashed with green.
Technique: Pottery; yellowish transparent lead glaze, splashed with green over white slip.
Material: Pink earthenware.
Dimensions: 3.7 x 1.6cm; 0.7cm thick.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 766 Context: 78ae
Stratigraphic Phase: XCV Weight: 1g

Description: Wall sherd: one side dark green glaze; other side yellowish glaze.
Technique: Pottery; green glaze/yellowish glaze (lead)
Material: Yellowish earthenware.
Dimensions: 2 x 1cm; 0.4cm thick.
Date: 9th - 13th century? Provenance: Iraq or Iran

Special find no: 671 Context: 193ae
Stratigraphic Phase: XCV Weight: 7g
Description: Rim sherd: one side light green glaze splash on yellowish glaze; other side yellowish glaze, white slip visible below.
Technique: Pottery; slashes of green glaze on yellowish transparent glaze (lead) over white slip.
Material: Pink earthenware.
Dimensions: 3.5 x 2cm; 0.6cm thick.
Date: 9th - 13th century? Provenance: Iraq or Iran

Special find no: 236 Context: 86ae
Stratigraphic Phase: XCV Weight: 56.53g
Description: Rim sherd: one side light green glaze splash on yellowish glaze; other side yellowish glaze, white slip visible below.
Technique: Pottery; slashes of green glaze on yellowish transparent glaze (lead) over white slip.
Material: Pink earthenware.
Dimensions: 7.8 x 8.9cm; 0.6cm thick.
Date: 9th - 13th century? Provenance: Iraq or Iran

5.2.5 The 'Sasanian-Islamic' wares

The Sasanian-Islamic wares, also known as blue-glazed ware owing to the use of a blue alkaline-based copper glaze (Tampoe 1989: 11), represent the second largest category of West Asian ceramics at ASW2. They are of fairly coarse manufacture, quite heavily potted, with a yellowish or greyish earthenware body. They are generally coated with a turquoise glaze, although they often appear with one side turquoise glazed, and the other coated with a cloudy, mottled glaze of a hue that ranges from yellowish grey to nearly black. Sometimes they bear rudimentary incised or moulded decoration. A number of examples were found to have barbotine decoration. The forms of this vessel, where reconstructable, are mostly large storage jars. As the name implies, they defy close dating in themselves, and dates from pre-Islamic times, quite possibly as far back as Parthian times, to early Islamic times must be allowed. The vessels from Sirkap, Taxila (Marshall 1951: 406-408), for example, probably date to the first and second centuries AD. Their provenance is probably Iraq and Iran. A total of 116 sherds were recovered, 3 from period A, 29 from period B, 76 from period C,D & E, and 4 from both periods F and G. The sherds from F and G, weighing a total of 44.4g, represent the earliest finds of glazed ceramics in the sequence. Their appearance in these periods at a date in the early centuries AD suggest that they are either intrusive or that they may represent Parthian blue glazed wares; certainly their glaze is extremely crackled, eroded and friable. Similarly early levels have also been reported at Anuradhapura by Deraniyagala (1992: 724). A further anomaly is represented by sf 1910, which consists of three joined sherds. The sherds are joined by their own fluxed glazes, suggesting an extreme heat may have been the cause. They have been interpreted as wasters, but their presence at ASW2 is difficult to accept as evidence for the presence of a kiln at the site! They may be explained as broken sherds which were accidentally subjected to intense heat in a furnace or fire. Sherds of Sasanian-

Islamic wares have also been recovered from the Abhayagiri Vihara at Anuradhapura (Wickramagamage 1984: 36; Wickramagamage *et al.* 1984: 362) as well as Mantai (Carswell and Prickett 1984: 64). Other Indian Ocean sites include Siraf (Whitehouse 1968: 14; Tampoe 1989: 31), Banbhore (Khan 1964: 54), Kilwa and Manda (Chittick 1974: 302).

Special find no: 362 Context: 4se
Stratigraphic Phase: CXIV Weight: 21g
Description: Five thick wall sherds: one side in turquoise glaze; the other glazed black. Apparently fragments of a very large vessel.
Technique: Glazed earthenware; turquoise glaze; black under-glaze?/glaze?
Material: Yellow earthenware.
Dimensions: Largest piece: 4.5 x 2.5cm; 1.2cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq, Iran?

Special find no: 360 Context: 4
Stratigraphic Phase: CXIV Weight: 11g
Description: wall sherd of large vessel; exterior bears turquoise glaze; interior bears blackish glaze.
Technique: Earthenware pottery; turquoise glaze; black glaze.
Material: Yellow earthenware.
Dimensions: Width 3cm; 1.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq, Iran?

Special find no: 356 Context: 4ne
Stratigraphic Phase: CXIV Weight: 5g
Description: Wall sherd: one side bears turquoise glaze; other side may bear a turquoise glaze, but has been too heavily deteriorated for a good assessment to be feasible.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2256 Context: 17se
Stratigraphic Phase: CXIII Weight: 3g
Description: Three sherds forming one wall sherd: outer side with turquoise glaze; inner side unglazed.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2255 Context: 17se
Stratigraphic Phase: CXIII Weight: 2g
Description: Sherd of oval cross-section, possibly from handle: turquoise glazed.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 2cm; 0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2225 Context: 17se
Stratigraphic Phase: CXIII Weight: 2g
Description: Sherd with long, oval cross-section: continuous turquoise glazed surface.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1331 Context: 71sw
Stratigraphic Phase: CXIII Weight: 0.3g
Description: Rounded rim sherd: turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1330 Context: 71sw
Stratigraphic Phase: CXIII Weight: 2g
Description: Wall sherd: both sides seem to be coated in a turquoise glaze, heavily obscured by dirt.

Technique: Turquoise glazed earthenware.
Material: Yellowish earthenware.
Dimensions: 2 x 1cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1139 Context: 17se
Stratigraphic Phase: CXIII Weight: 3g
Description: Wall sherd: one side bears a small fragment of turquoise glaze; other side bears a mottled, yellowish black glaze, slightly pitted.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 2cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 892 Context: 69sw
Stratigraphic Phase: CXIII Weight: 2g
Description: Sherd: round everted rim of large vessel; turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 357 Context: 5
Stratigraphic Phase: CXII Weight: 6g
Description: Wall sherd: outer side with turquoise glaze; inner side with blackish glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 3 x 1.5cm; 0.9cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1322 Context: 9se
Stratigraphic Phase: CVI Weight: 10g
Description: Wall sherd of large vessel: exterior bears turquoise glaze; interior bears cloudy greyish-bluish glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 4.5 x 2cm; 0.9cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 888 Context: 9nw
Stratigraphic Phase: CVI Weight: 18g
Description: Wall sherd: outer side bears deteriorated turquoise glaze; inner side is unglazed and appears as a series of overlapping bands.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 4cm; 0.8-0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 764 Context: 9nw
Stratigraphic Phase: CVI Weight: 1g
Description: Wall sherd: each side bears turquoise glaze; one side with horizontal indentation.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 1cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 27 Context: 9
Stratigraphic Phase: CVI Weight: 4g
Description: Wall sherd of vessel: exterior bears turquoise glaze; glaze of interior is of uneven hue, greenish-bluish-blackish.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 3 x 1.5cm; 0.7-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 995 Context: 9nw
Stratigraphic Phase: CVI Weight: 15g
Description: Wall sherd of large vessel; outer side bears turquoise glaze and moulded decoration; inner side bears rough greyish-blue glaze of uneven hue.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.

Dimensions: 4 x 3.5cm; 1cm average thickness.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran
[Plate 1.1]

Special find no: 887 Context: 26ne
Stratigraphic Phase: CIV Weight: 23.96g
Description: Body sherd: both sides bear turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthen ware.
Dimensions: 5.7 x 5.4cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 104 Context: 28
Stratigraphic Phase: CIII Weight: 8g
Description: Thick wall sherd: one side with slight horizontal ridge; both sides turquoise glazed.
Technique: Turquoise glazed earthen ware.
Material: Coarse grey earthenware.
Dimensions: Width 2.5cm; 0.8cm thick.
Date: / Provenance: /

Special find no: 8788 Context: 41se
Stratigraphic Phase: C Weight: 2g
Description: Tapered rim sherd of vessel; bears glazed surface of an uneven greyish hue.
Technique: Glazed pottery.
Material: Pink earthenware.
Dimensions: 2 x 1.5cm.
Date: 'Sasanian Islamic'? Provenance: Iraq or Iran

Special find no: 8155 Context: 41se
Stratigraphic Phase: C Weight: 0.3g
Description: Wall sherd: turquoise glaze on one side; mottled grey-blue glaze on other.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 1 x 0.5cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 886 Context: 41sw
Stratigraphic Phase: C Weight: 3g
Description: Wall sherd: exterior bears horizontal mouldings and turquoise glaze; interior bears greyish-bluish glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 1.5cm; 0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 365 Context: 41se
Stratigraphic Phase: C Weight: 5g
Description: Wall sherd: outer side with turquoise glaze; inner side with blackish glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 3 x 2cm; 1.0-0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 364 Context: 41se
Stratigraphic Phase: C Weight: 1g
Description: Wall sherd: one side with turquoise glaze; other side with glaze of uneven hue, turquoise-black.
Technique: Turquoise glazed earthen ware.
Material: Earthenware; colour obscured by dirt.
Dimensions: 1.5 x 1cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 363 Context: 41se
Stratigraphic Phase: C Weight: 5g
Description: Wall sherd: exterior bears turquoise glaze; interior glaze appears black.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.8-0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 172 Context: 41
Stratigraphic Phase: C Weight: 4g
Description: Wall sherd of large vessel: both sides turquoise glazed.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 2.5 x 2cm; 0.7cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 127 Context: 27sw
Stratigraphic Phase: C Weight: 54g
Description: Very thick wall sherd of large vessel: exterior bears turquoise glaze; interior bears yellowish glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware?
Dimensions: Width 4cm; 2.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 77 Context: 24
Stratigraphic Phase: C Weight: 12g
Description: Thick wall sherd of large vessel: both sides bearing turquoise glaze, outer side with under-glaze black stripes and shallow horizontal mouldings.
Technique: Turquoise glazed earthenware; with under-glaze black designs.
Material: Yellow earthenware.
Dimensions: 4 x 3cm; 1cm thick.
Date: ? Provenance: Iraq or Iran

Special find no: 281 Context: 51sw
Stratigraphic Phase: XCIX Weight: 6g
Description: Wall sherd; turquoise glazed on outer side, with horizontal moulding; interior bears glaze of uneven hue, greenish-black.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 2.5cm; 0.7-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1481 Context: 25sw
Stratigraphic Phase: XCVII Weight: 3g
Description: Wall sherd; one side with horizontal moulding; both sides turquoise glazed, slightly iridescent.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 893 Context: 25sw
Stratigraphic Phase: XCVII Weight: 2g
Description: Sherd; neck of vessel? interior of narrow curvature. Interior bears turquoise glaze; small area of turquoise glazed surface survives on exterior.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 218 Context: 25se
Stratigraphic Phase: XCVII Weight: 15g
Description: Wall sherd of thick vessel; outer side bears turquoise glaze; inner side bears an unevenly hued blackish glaze.
Technique: Earthenware pottery; turquoise glaze; blackish glaze.
Material: Yellow earthenware.
Dimensions: 5 x 3cm; 0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 885 Context: 47sw
Stratigraphic Phase: XCVI Weight: 14g
Description: Thick sherd; outer surface bears turquoise glaze; inner surface is rough and uneven, and is coated in a thin, pale turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 4 x 2cm; 2cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 15154 Context: 600
Stratigraphic Phase: XCV Weight: 0.6g
Description: Wall sherd; one side bears turquoise glaze; other side bears greenish-turquoise glaze.
Technique: Turquoise glazed earthenware.



- Material: Yellow earthenware.
Dimensions: Width 1cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 15153 Context: 600
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; outer side bears turquoise glaze; inner side bears pale turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 1cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 15152 Context: 600
Stratigraphic Phase: XCV Weight: 6g
Description: Wall sherd; both sides lightly ribbed; exterior side bears pale turquoise glaze; inner side bears a deteriorated mottled turquoise glaze of uneven hue and rough texture.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 5 x 2.5cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8594 Context: 347ne
Stratigraphic Phase: XCV Weight: 23g
Description: Thick body sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 4.2 x 3.6cm; 1.2cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8583 Context: 269se
Stratigraphic Phase: XCV Weight: 18g
Description: Wall sherd; on the outer side an area remains of highly deteriorated turquoise glaze; inner side appears to bear a mottled yellowish-turquoise glaze very unevenly applied, in parts pitted, and at one corner the glaze runs over the edge and down the side.
Technique: Turquoise glazed pottery.
Material: Orange earthenware?
Dimensions: Width 4.5cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8568 Context: 320ne
Stratigraphic Phase: XCV Weight: 2g
Description: One side of sherd bears an iridescent turquoise glaze; the other bears a yellowish-grey glaze of uneven hue, and a ridge moulding.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.7cm average thickness.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8560 Context: 301
Stratigraphic Phase: XCV Weight: 7g
Description: Thick sherd; apparently only one surface remaining, which bears turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 3 x 2.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8559 Context: 325ne
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; one side with deteriorated turquoise glaze; the other with a mottled yellowish-grey glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.9cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8536 Context: 331
Stratigraphic Phase: XCV Weight: 4g
Description: Thick wall sherd; one side bears turquoise glaze; the other bears a glazed surface that is one half turquoise and the other half grey.
Technique: Turquoise glazed pottery.
Material: Earthenware; colour obscured by dirt.
- Dimensions: 2 x 1.5cm; 1.2cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 6620 Context: 347ne
Stratigraphic Phase: XCV Weight: 22g
Description: Body sherd; outer side bears turquoise glaze over two dark lines; inner side partially turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 6 x 2.5cm; 0.9cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
[Plate 1.1]
- Special find no: 6334 Context: 394sw
Stratigraphic Phase: XCV Weight: 0.4g
Description: Sherd with turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 6316 Context: 394sw
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; upper side turquoise glazed; lower side bears mottled yellowish-turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 6275 Context: 313sw
Stratigraphic Phase: XCV Weight: 6g
Description: Two sherds forming one; both sides are very rough and irregular; one side is unglazed, the other bears patches of a pitted greenish-turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Pinkish white earthenware.
Dimensions: The whole: width 3cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran (?)
- Special find no: 6249 Context: 313sw
Stratigraphic Phase: XCV Weight: 0.3g
Description: Small sherd with a surface of turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 1.2 x 0.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 6071 Context: 296ne
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 2776 Context: 296ne
Stratigraphic Phase: XCV Weight: 2g
Description: Rounded, everted rim sherd of large vessel; turquoise glaze and horizontal mouldings on exterior and interior.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 2775 Context: 296ne
Stratigraphic Phase: XCV Weight: 2g
Description: Rim sherd with bulge on upper part of exterior side; all sides bear yellowish-turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 1-0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 2751 Context: 296ne
Stratigraphic Phase: XCV Weight: 7g
Description: Wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.

Dimensions: 2.5 x 2cm; 1cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2733

Context: 368aw

Stratigraphic Phase: XCV

Weight: 3g

Description: Base sherd?; at the top there is a surface of turquoise glaze; at the bottom, facing out to the side, there is a small, rough, indented surface of turquoise glaze.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 2 x 1.5 x 1cm.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2722

Context: 294ne

Stratigraphic Phase: XCV

Weight: 5g

Description: Wall sherd of large vessel; exterior bears turquoise glaze; interior bears glaze of uneven hue, greyish.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 2.5 x 2cm; 1cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2635

Context: 292ne

Stratigraphic Phase: XCV

Weight: 12g

Description: Wall sherd of large vessel; exterior bears horizontal ribbing and turquoise glaze; interior bears rough greyish-blue glaze of uneven hue.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: /

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2609

Context: 356aw

Stratigraphic Phase: XCV

Weight: 6g

Description: Wall sherd; outer side turquoise glazed; glazed inner side appears as black and white horizontal bands.

Technique: Turquoise glazed pottery.

Material: Yellow earthenware.

Dimensions: 4 x 3cm; 0.7cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2381

Context: 295ne

Stratigraphic Phase: XCV

Weight: 2g

Description: Wall sherd; both sides turquoise glazed.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 1.5 x 1cm; 1.2cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2282

Context: 325ne

Stratigraphic Phase: XCV

Weight: 2g

Description: Wall sherd; both sides bear identical turquoise glaze.

Technique: Turquoise glazed pottery.

Material: Yellow earthenware.

Dimensions: Width 1.5cm; 0.6cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2280

Context: 263

Stratigraphic Phase: XCV

Weight: 3g

Description: Wall sherd; outer side with turquoise glaze and moulded indentation; inner side with a more deteriorated turquoise glaze.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 2 x 1.5cm; 0.7cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2211

Context: 325ne

Stratigraphic Phase: XCV

Weight: 1g

Description: Wall sherd; one side bears a pale turquoise glaze; the other side bears a glaze that may be classifiable as turquoise, but it appears yellowish-grey.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 1.5 x 0.5cm; 0.5cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 2138

Context: 285

Stratigraphic Phase: XCV

Weight: 2g

Description: Wall sherd; exterior bears turquoise glaze; interior appears yellowish-blue.

Technique: Turquoise glazed pottery.

Material: Yellow earthenware.

Dimensions: 2.5 x 1cm; 0.5cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1910

Context: 325ne

Stratigraphic Phase: XCV

Weight: 78g

Description: Three coarse sherds forming a single whole: two large sherds, with a third small sherd stuck against the outer side of one of the large sherds. In all, the outer side is apparently covered in turquoise glaze, although this is densely covered in a layer of soot or dirt, which is stuck against the glaze. The inner side seems to be covered in a yellowish-grey glaze. The surface is generally pitted and uneven. A small sherd is stuck against one of the large sherds in the following way: they adjoin each other at their respective outer, turquoise glazed surfaces in such a way as to suggest their glazes were fluxed together under heat. Therefore, this piece may represent a waster.

Technique: Turquoise glazed pottery.

Material: Friable greyish earthenware.

Dimensions: The whole: 8 x 6cm; 1cm average thickness.

Date: / Provenance: Iraq (?) Iran (?) Local (?)

Special find no: 1901

Context: 325ne

Stratigraphic Phase: XCV

Weight: 7g

Description: Wall sherd; turquoise glazed; coarse manufacture.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 3 x 2.5cm; 0.9cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1887

Context: 332se

Stratigraphic Phase: XCV

Weight: 10g

Description: Wall sherd; outer side turquoise glazed; inner side bears yellowish turquoise glaze of uneven hue.

Technique: Turquoise glazed pottery.

Material: Yellow earthenware.

Dimensions: Width 3cm; 1cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1881

Context: 324ne

Stratigraphic Phase: XCV

Weight: 1g

Description: Wall sherd; both sides turquoise glazed.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 2 x 1cm; 0.5-0.4cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1879

Context: 332se

Stratigraphic Phase: XCV

Weight: 1g

Description: Wall sherd; outer side with turquoise glaze; inner side with glaze of uneven hue, turquoise-greenish.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: 1.5 x 1cm; 0.4cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1848

Context: 331se

Stratigraphic Phase: XCV

Weight: 8g

Description: Wall sherd of large vessel; outer side bears turquoise glaze; inner side seems to have a turquoiseish glaze, heavily obscured by dirt.

Technique: Turquoise glazed earthenware.

Material: Yellow earthenware.

Dimensions: Width 3cm; 1.1cm thick.

Date: 'Sasanian Islamic' Provenance: Iraq or Iran

Special find no: 1766

Context: 316ne

Stratigraphic Phase: XCV

Weight: 0.2g

Description: Sherd with a surface of turquoise glaze.

Technique: Turquoise glazed pottery.

Material: Yellow earthenware.

- Dimensions: 1 x 0.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1762 Context: 301ne
Stratigraphic Phase: XCV Weight: 5g
Description: Wall sherd; exterior bears turquoise glaze; glaze of interior appears yellowish blue.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 3 x 2.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1753 Context: 316ne
Stratigraphic Phase: XCV Weight: 2g
Description: Sherd with a single surface of glaze; glaze heavily obscured, but seems to be turquoise.
Technique: Turquoise glazed pottery?
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1696 Context: 272se
Stratigraphic Phase: XCV Weight: 7g
Description: Thick wall sherd of vessel; outer side bears horizontal mouldings and a smooth, mottled turquoise glaze; inner side bears horizontal mouldings and a greyish-turquoise glaze of rough texture.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 4 x 2cm; 0.8-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1626 Context: 256se
Stratigraphic Phase: XCV Weight: 6g
Description: Wall sherd; both sides bear uneven surfaces; one side bears turquoise glaze; the glazed surface of the other side appears greyish and very rough in texture.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 3 x 2cm; 0.8-0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1622 Context: 271se
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; one side convex and turquoise glazed; the other side turquoise glazed and with horizontal moulding.
Technique: Turquoise glazed earthenware.
Material: Earthenware; colour of glaze obscured by dirt.
Dimensions: 2 x 1cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1614 Context: 256se
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; exterior bears turquoise glaze; interior bears cloudy greyish-turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.7-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1588 Context: 263ne
Stratigraphic Phase: XCV Weight: 9g
Description: Two wall sherds forming one piece; exterior bears turquoise glaze and mouldings; interior bears dull greyish glaze with a small patch of turquoise.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 3cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1559 Context: 262se
Stratigraphic Phase: XCV Weight: 1g
Description: Small sherd bearing a surface of turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1551 Context: 261nw
Stratigraphic Phase: XCV Weight: 17g
Description: Thick wall sherd of large vessel; turquoise glaze on both sides.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 4 x 3cm; 0.9-0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1539 Context: 254se
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 1cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1537 Context: 254se
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; one side with turquoise glaze; the other with glaze of uneven hue, greyish-greenish.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1530 Context: 254se
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1524 Context: 251swse
Stratigraphic Phase: XCV Weight: /
Description: Wall sherd of large vessel; exterior bears light horizontal mouldings and turquoise glaze; interior bears light horizontal mouldings and yellowish-turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 3.5 x 2cm; 0.8-0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1480 Context: 190nw
Stratigraphic Phase: XCV Weight: 4g
Description: Wall sherd; exterior bears light horizontal moulding and turquoise glaze; interior bears mottled greyish-blue glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1477 Context: 182se
Stratigraphic Phase: XCV Weight: 1g
Description: Sherd with a surface of turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 1.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1355 Context: 42nw
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; turquoise glazed with horizontal mouldings.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1345 Context: 97se
Stratigraphic Phase: XCV Weight: 8g
Description: Wall sherd of large vessel; exterior bears light horizontal mouldings and turquoise glaze, apparently with a few aubergine speckles; interior bears rough, deteriorated yellowish-blue glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.

Glazed Ceramics

- Dimensions: 3.5 x 3cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1342 Context: 50sw
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; one side bears turquoise glaze; the other bears a yellowish turquoise glaze with dark grey patch.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 2cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1334 Context: 130sw
Stratigraphic Phase: XCV Weight: 23g
Description: Wall and flat-topped rim of large vessel; iridescent turquoise glaze on inner and outer sides, and rim top.
Technique: Turquoise glazed pottery.
Material: Earthenware; colour obscured by dirt.
Dimensions: Width 3.5cm; 2cm thick; rim width 2cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1169 Context: 92sw
Stratigraphic Phase: XCV Weight: 7g
Description: Wall sherd; exterior bears a series of horizontal incisions under a turquoise glaze; interior bears glaze that appears yellowish-grey of uneven hue.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 3 x 2.5cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 1168 Context: 92
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; exterior bears horizontal moulding and turquoise glaze; interior bears turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 3 x 1.5cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 894 Context: 107nw
Stratigraphic Phase: XCV Weight: 2g
Description: Wall sherd; both sides with turquoise glaze and horizontal mouldings.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 0.8cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 891 Context: 134se
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; very abraded.
Technique: Turquoise glazed earthenware.
Material: Yellowish earthenware.
Dimensions: 2.7 x 2cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 890 Context: 134se
Stratigraphic Phase: XCV Weight: 5g
Description: Thick wall sherd; one side bears turquoise glaze; other side glazed black.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 2 x 1.5cm; 1.3cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 655 Context: 184
Stratigraphic Phase: XCV Weight: 2g
Description: Thick wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2 x 1cm; 1.1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 650 Context: 181
Stratigraphic Phase: XCV Weight: 3g
- Description: Wall sherd; one side with horizontal mouldings and turquoise glaze; other side bears glaze of uneven hue, greenish-turquoise.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 2cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 647 Context: 181
Stratigraphic Phase: XCV Weight: 4g
Description: Wall sherd; outer side with horizontal mouldings; both sides with turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 636 Context: 166
Stratigraphic Phase: XCV Weight: 11g
Description: Thick wall sherd of large vessel; exterior turquoise glazed with light horizontal moulding; interior bears cloudy greyish turquoise glaze of uneven hue.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 4 x 2cm; 1.3cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 629 Context: 56
Stratigraphic Phase: XCV Weight: 1g
Description: Sherd of triangular cross-section; two long sides and one short side. One long side bears a turquoise glazed surface; the surfaces of the other two sides are smooth and unglazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 602 Context: 52se
Stratigraphic Phase: XCV Weight: 1g
Description: Small sherd; upper side turquoise glazed; unglazed lower side tapers until it meets upper side at an edge.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 601 Context: 113
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; exterior glazed turquoise, with horizontal mouldings; interior bears glaze of uneven hue, bluish-blackish.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 2.5 x 1.5cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 456 Context: 134se
Stratigraphic Phase: XCV Weight: 10g
Description: Two similar wall sherds, from large vessel; each side coated with a cloudy turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 3 x 1.5cm; 2 x 1cm; both 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 359 Context: 45
Stratigraphic Phase: XCV Weight: 4g
Description: Thick wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Grey yellowish earthenware.
Dimensions: 3 x 1.5cm; 1.5cm thick.
Date: 'Sasanian Islamic' (?) Provenance: Iraq or Iran (?)
- Special find no: 358 Context: 80sw
Stratigraphic Phase: XCV Weight: 14g
Description: Body sherd; both sides turquoise glazed (outer side is dark turquoise).
Technique: Turquoise glazed earthenware.
Material: Yellowish earthenware.

- Dimensions: 4.5 x 3.2cm; 0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 350 Context: 111
Stratigraphic Phase: XCV Weight: 3g
Description: Sherd with flared flat-topped rim, of large vessel; outer side with horizontal indentation below rim; all surfaces turquoise glazed.
Technique: Turquoise glazed earthenware.
Material: Yellowish earthenware.
Dimensions: Width 1.5cm; wall thickness 0.8cm; rim width 1.2cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 275 Context: 88nw
Stratigraphic Phase: XCV Weight: 1g
Description: Two wall sherds; larger sherd bears turquoise glaze on one side, and blackish glaze on other; smaller sherd bears turquoise glaze.
Technique: Turquoise glazed earthenware; blackish glaze used also.
Material: Yellow earthenware.
Dimensions: Large: 2 x 0.5cm; 1cm thick. Small: 1cm width.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 251 Context: 56se
Stratigraphic Phase: XCV Weight: 12g
Description: Wall sherd of large vessel; inner side with horizontal mouldings; both sides bear cloudy turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 4 x 3.5cm; 1.0-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 245 Context: 80sw
Stratigraphic Phase: XCV Weight: 10g
Description: Wall sherd; one side bears turquoise glaze and moulded relief designs; the surface of the other side is uneven and seems to be glazed in a faded turquoise.
Technique: Turquoise glaze earthenware.
Material: Yellow earthenware.
Dimensions: 4.5 x 2.5cm; 1-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 181 Context: 61ne
Stratigraphic Phase: XCV Weight: 1g
Description: Sherd; a small turquoise glazed surface on one side; the other side unglazed.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: 1.5 x 1cm; 1cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 157 Context: 49se
Stratigraphic Phase: XCV Weight: 5g
Description: Wall sherd; inner side bears a faded turquoise glaze, and horizontal indentations; outer side bears turquoise glaze, which has largely fallen away.
Technique: Turquoise glazed earthenware.
Material: Pink-orange earthenware.
Dimensions: 4 x 2.5cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 8498 Context: 74sw
Stratigraphic Phase: XCIV Weight: 8g
Description: Wall sherd; both sides with uneven surfaces; one side bears a few fragments of turquoise glaze; the other bears no glaze.
Technique: Turquoise glazed pottery.
Material: Pinkish earthenware.
Dimensions: 5 x 2.5cm; 0.7-0.6cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- Special find no: 204 Context: 74
Stratigraphic Phase: XCIV Weight: 1g
Description: Wall sherd; both sides bearing turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellow earthenware.
Dimensions: Width 1cm; 0.4cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
Special find no: 2570 Context: 73sw
- Stratigraphic Phase: XCIII Weight: 12g
Description: Wall sherd; outer side shows a trace of turquoise glaze, but is predominantly covered by an orange iridescence; inner side bears no glaze and is slightly ribbed.
Technique: Turquoise glazed pottery.
Material: Pinkish earthenware.
Dimensions: 5 x 3cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 2559 Context: 73sw
Stratigraphic Phase: XCIII Weight: 6g
Description: Wall sherd; outer side bears a glaze almost totally obscured, but turquoise is arguably visible in one or two minute areas; inner side unglazed.
Technique: Turquoise glazed pottery?
Material: Yellow earthenware.
Dimensions: 0.5 - 0.1cm each.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 5650 Context: 366se
Stratigraphic Phase: XCII Weight: 2g
Description: Body sherd; glaze has been eroded from both sides.
Technique: Glazed earthenware.
Material: Grey yellowish earthenware.
Dimensions: 2.2 x 1.6cm; 0.6cm thick.
Date: 'Sasanian Islamic' (?) Provenance: Iraq or Iran
- perhaps Parthian.
- Special find no: 2809 Context: 185ne
Stratigraphic Phase: XCII Weight: 16g
Description: Apparently a wall sherd, with a fragmentary wing rising from exterior. Exterior and wing bear irridised turquoise glaze. Inner side bears pale turquoise glaze.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 4 x 2.5cm; wall thickness 1cm.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 8590 Context: 420sw
Stratigraphic Phase: XCI Weight: 2g
Description: Wall sherd; one side bears turquoise glaze, heavily obscured by brown iridescence; the other side is unglazed.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: Width 1.5cm; 0.7cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 2378 Context: 396
Stratigraphic Phase: XCI Weight: 0.4g
Description: Wall sherd; both sides turquoise glazed.
Technique: Turquoise glazed pottery.
Material: Yellow earthenware.
Dimensions: 1 x 0.5cm; 0.5cm thick.
Date: 'Sasanian Islamic' Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 6923 Context: 470sw
Stratigraphic Phase: LXXXI Weight: 4g
Description: Body sherd; outer side bears very crackled, iridescent glaze.
Technique: Glazed earthenware.
Material: Yellowish earthenware.
Dimensions: 2.8 x 2.4cm; 0.9cm thick.
Date: 'Sasanian Islamic' (?) Provenance: Iraq or Iran
- perhaps Parthian
- Special find no: 7191 Context: 489nw
Stratigraphic Phase: LXXV Weight: 2g
Description: Thin body sherd; both sides bear very crackled turquoise glaze.
Technique: Turquoise glazed earthenware.
Material: Yellowish earthenware.
Dimensions: 1.9 x 1.5cm; 0.3cm thick.
Date: 'Sasanian Islamic' (?) Provenance: Iraq or Iran

- perhaps Parthian
[Plate 1.1]

Dimensions: /
Date: /

Provenance: Middle East

5.2.6 Undiagnostic

There are only 8 undiagnostic sherds in the entire collection of 335. A number of them are in an eroded form and may be Sasanian-Islamic sherds that have lost their glaze; others may be poorly fired examples

Special find no: 361 Context: 4se; old land surface
Stratigraphic Phase: CXIV Weight: 4g
Description: wall sherd: outer side seems to bear yellowish slip surface, possibly unglazed; inner side bears an unglazed, combed surface, slightly ribbed.
Technique: unglazed pottery.
Material: Yellow earthenware.
Dimensions: 2.5 x 2cm; 0.7cm thick.
Date: ? Provenance: Middle East?

Special find no: 2263 Context: 82nw
Stratigraphic Phase: XCIX Weight: 10g
Description: Wall sherd: one side with dull, yellowish glaze; other side with off-white glaze.
Technique: Pottery; yellowish glaze/off-white glaze.
Material: Pink earthenware, flinty.
Dimensions: 5 x 2.5cm; 0.6cm thick.
Date: 9th - 13th century Provenance: Iraq or Iran

Special find no: 1972 Context: 334ne
Stratigraphic Phase: XCV Weight: 15g
Description: Wall sherd; outer side bears an off-white glazed surface, in the central region of which there is a raised area of blue and black iridescence of irregular shape; inner side bears an unglazed, combed surface, slightly ribbed.
Technique: Glazed pottery.
Material: Yellow earthenware.
Dimensions: 5 x 2.5cm; 0.8cm thick.
Date: ? Provenance: Iraq or Iran

Special find no: 1911 Context: 325ne
Stratigraphic Phase: XCV Weight: 2g
Description: Rim sherd; deteriorated yellow glaze.
Technique: Glazed pottery.
Material: Pink-yellow earthenware.
Dimensions: Width 2cm.
Date: / Provenance: Middle East

Special find no: 1859 Context: 324ne
Stratigraphic Phase: XCV Weight: 0.3g
Description: About a dozen fragments of yellow earthenware.
Technique: /
Material: Yellow earthenware.
Dimensions: 0.5 - 0.1cm each.
Date: / Provenance: /

Special find no: 1746 Context: 316ne
Stratigraphic Phase: XCV Weight: 11g
Description: Wall sherd of unglazed earthenware.
Technique: Unglazed pottery.
Material: Yellow earthenware.
Dimensions: 5 x 2.5cm; 0.9-0.7cm thick.
Date: / Provenance: Middle East?

Special find no: 1478 Context: 124ne
Stratigraphic Phase: XCV Weight: 6g
Description: Unglazed (or lost glaze) yellow earthenware wall sherd.
Technique: /
Material: Yellow earthenware.
Dimensions: 3 x 2cm; 1cm thick.
Date: / Provenance: Iraq or Iran

Special find no: 1337 Context: 76ne
Stratigraphic Phase: XCV Weight: 1g
Description: Wall sherd; yellow-orange glaze.
Technique: Yellow glazed earthenware.
Material: Red-pink earthenware.

5.2.7 Buff ware

Buff ware sherds represent a large group of sherds at ASW2. It should be stressed that this term is purely descriptive and cannot be linked with other uses of this term such as at Nishapur (Wilkinson 1973: 53). They are unglazed, with a light tan to buff or red earthenware body, with sand-tempered fabric. A large proportion of them have a black coating on the interior (very occasionally on the exterior as well), with the other side either plain or with a thin white slip coating. Vessel types include jars with, so far as may be judged, either of two bases, a flat circular one or a narrow flaring shaft typical of an amphora. This category of ceramics, also found at Mantai, have been previously identified as Sasanian or Early Islamic and dated to between the fifth and ninth centuries AD by Wijeyapala and Prickett (1986: 17). Although the latter authors have identified the black coating as resin, molecular studies carried out in 1996 by Dr Carl Heron of the Department of Archaeological Sciences, University of Bradford, have shown that it is in fact bituminous (Heron, pers. comm.). It is interesting to note that two sherds of unglazed red earthenware at Siraf were also found to bear a bitumen coating, presumably for liquid storage (Tampoe 1989: 11). They have been included under West Asian glazed ceramics as they are from that region and because they have been treated with an exterior coating. Although, with a total of 59 sherds, they may not represent the largest number of West Asian ceramics, they certainly account for the highest weight count with 2232g: 36 sherds were recovered from period C,D & E, 15 from period B and 14 from period A. As mentioned above, sherds of buff ware have also been recovered from Mantai (Wijeyapala and Prickett 1986: 17), as well as from the southern rampart site in the Citadel of Anuradhapura (Ueyama and Nozaki 1993).

Special find no: 30103 Context: 1sw
Stratigraphic Phase: CXVIII Weight: 31g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5.6 x 4.1cm; 1.2cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30114 Context: 4se
Stratigraphic Phase: CXIV Weight: 7g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.2 x 3cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30112 Context: 4nw
Stratigraphic Phase: CXIV Weight: 42g
Description: Body sherd towards base of amphora; narrow flaring shaft without base; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7 x 4cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

- Special find no: 30106 Context: 4ne
Stratigraphic Phase: CXIV Weight: 40g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7 x 4.2cm; 1.2cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 30105 Context: 4sw
Stratigraphic Phase: CXIV Weight: 167g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 10.5 x 9.6cm; 1.2cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 30102 Context: 4nw
Stratigraphic Phase: CXIV Weight: 17g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4 x 3.8cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 30101 Context: 4sw
Stratigraphic Phase: CXIV Weight: 36g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip with some areas of bitumen.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.4 x 7cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8628 Context: 4se
Stratigraphic Phase: CXIV Weight: 70g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5.6 x 5.5cm; 1.8cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8626 Context: 17se
Stratigraphic Phase: CXIII Weight: 45g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.5 x 5.4cm; 1.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8625 Context: 17se
Stratigraphic Phase: CXIII Weight: 13g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4 x 2.2cm; 1.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 30109 Context: 5ne
Stratigraphic Phase: CXII Weight: 9g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4 x 3cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8622 Context: 15nw
Stratigraphic Phase: CXI Weight: 29g
Description: Body sherd; no bitumen on interior; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6.5 x 5.1cm; 1.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8612 Context: 15nw
Stratigraphic Phase: CXI Weight: 42g
Description: Body sherd; interior bears bitumen coating.
Technique: Earthenware with bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5 x 5cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8619 Context: 19sw
Stratigraphic Phase: CX Weight: 5g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 2.6 x 2.5cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8610 Context: 19sw
Stratigraphic Phase: CX Weight: 4g
Description: Two body sherds; interiors bear bitumen coating; exteriors bear white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.4 x 3.5cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8608 Context: 94ne
Stratigraphic Phase: CIII Weight: 14g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.2 x 2.1cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8618 Context: 14sw
Stratigraphic Phase: CII Weight: 16g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.4 x 3cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8623 Context: 24ne
Stratigraphic Phase: C Weight: 17g
Description: Body sherd; no bitumen coating or white slip.
Technique: Earthenware.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.2 x 2.7cm; 5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8624 Context: 25ne
Stratigraphic Phase: XCVII Weight: 50g
Description: Body sherd; no bitumen or slip.
Technique: Earthenware.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6.7 x 6.2cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
- Special find no: 8605 Context: 25ne
Stratigraphic Phase: XCVII Weight: 45g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.5 x 6cm; 1.4cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Glazed Ceramics

Special find no: 8601 Context: 25nw
Stratigraphic Phase: XCVII Weight: 20g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.5 x 5cm; 1.3cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8600 Context: 25nw
Stratigraphic Phase: XCVII Weight: 3g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 2.1 x 2.1cm; 0.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8613 Context: 83sw
Stratigraphic Phase: XCVI Weight: 62g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 8.7 x 6.5cm; 1cm thick.
Date: 5th - 9th century
Provenance: Iraq or Iran?

Special find no: 30117 Context: 256
Stratigraphic Phase: XCV Weight: 25g
Description: Rim or lid sherd?; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.5 x 4.5cm; 2.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30116 Context: 88nw
Stratigraphic Phase: XCV Weight: 80g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 10.1 x 4.4cm; 2.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30115 Context: 134nw
Stratigraphic Phase: XCV Weight: 13g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.6 x 2.7cm; 0.8cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30113 Context: 316ne
Stratigraphic Phase: XCV Weight: 36g
Description: Jar rim sherd; rim and interior bear bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.5 x 3.1cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
[Fig. 5.2]

Special find no: 30111 Context: 158oe
Stratigraphic Phase: XCV Weight: 20g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.

Dimensions: 6.2 x 3cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30110 Context: 133ne
Stratigraphic Phase: XCV Weight: 105g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6 x 6cm; 3.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30108 Context: 316ne
Stratigraphic Phase: XCV Weight: 10g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.4 x 2.8cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 30107 Context: 97se
Stratigraphic Phase: XCV Weight: 69g
Description: Two body sherds; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: First: 6.1 x 3cm; 3cm thick; Second: 4 x 3cm; 2.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8670 Context: 294ne
Stratigraphic Phase: XCV Weight: 26g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6.4 x 4.6cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
[Plate 1.1]

Special find no: 8649 Context: 269
Stratigraphic Phase: XCV Weight: 12g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.4 x 3.2cm; 0.8cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8648 Context: 327ne
Stratigraphic Phase: XCV Weight: 16g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip with incised checker-board decoration.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.7 x 3.5cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8647 Context: 401sw
Stratigraphic Phase: XCV Weight: 100g
Description: Two body sherds; first: interior bears bitumen coating; exterior bears white slip second: very eroded.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: First: 5.6 x 4.5cm; 1.5cm thick; Second: 7.5 x 7.1cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8646 Context: 320ne
Stratigraphic Phase: XCV Weight: 45g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.

Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.1 x 4.8cm; 1.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8644 Context: 123se
Stratigraphic Phase: XCV Weight: 11g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.5 x 2.9cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8643 Context: 368
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 2.8 x 2.1cm; 0.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8642 Context: 368nw
Stratigraphic Phase: XCV Weight: 62g
Description: Two body sherds; interiors bear bitumen coating; exteriors bear white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: First: 6.5 x 5.4cm; 0.9cm thick; Second: 6.1 x 4.7cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8641 Context: 316ne
Stratigraphic Phase: XCV Weight: 35g
Description: Two body sherds; interiors bear bitumen coating; exteriors bear white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5.1 x 3.2cm; 1.2cm thick; Second: 4 x 2.5cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8640 Context: 324ne
Stratigraphic Phase: XCV Weight: 49g
Description: Two body sherds; interiors bear bitumen coating; exteriors bear white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: First: 7 x 4.3cm; 0.7cm thick; Second: 4 x 3.1cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8639 Context: 256
Stratigraphic Phase: XCV Weight: 50g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6.7 x 4.5cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8638 Context: 320se
Stratigraphic Phase: XCV Weight: 7g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3 x 2.5cm; 1.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8637 Context: 142se
Stratigraphic Phase: XCV Weight: 42g
Description: Body sherd rounded into a disc; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6.3 x 6.3cm; 0.7cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8633 Context: 401sw
Stratigraphic Phase: XCV Weight: 119g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 13.5 x 6.7cm; 1.4cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8630 Context: 134nw
Stratigraphic Phase: XCV Weight: 64g
Description: Body sherd; very eroded.
Technique: Earthenware, very eroded.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6 x 4.3cm; 1.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8629 Context: 88nw
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.7 x 1.1cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8621 Context: 86ne
Stratigraphic Phase: XCV Weight: 21g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 6 x 2.7cm; 0.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8620 Context: 158
Stratigraphic Phase: XCV Weight: 68g
Description: Two body sherds forming one piece; interiors bear bitumen coating; exteriors bear white slip. At least four edges worn into a tool or rubber.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: First: 5.1 x 3.3cm; 0.9cm thick; Second: 5.1 x 4.2cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8617 Context: 124nw
Stratigraphic Phase: XCV Weight: 12g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 4.9 x 2.2cm; 1.1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8616 Context: 107nw
Stratigraphic Phase: XCV Weight: 21g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.

Dimensions: 5 x 4.5cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8614 Context: 126se
Stratigraphic Phase: XCV Weight: 40g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5.7 x 5.1cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8609 Context: 76ne
Stratigraphic Phase: XCV Weight: 13g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5 x 3cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8607 Context: 78se
Stratigraphic Phase: XCV Weight: 45g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip. Three edges worn into a 'L'-shaped tool of rubber.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.9 x 5cm; 1.5cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8606 Context: 134
Stratigraphic Phase: XCV Weight: 20g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 3.7 x 3.2cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8604 Context: 103aw
Stratigraphic Phase: XCV Weight: 94g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 9.1 x 5.8cm; 1.6cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 8603 Context: 88ne
Stratigraphic Phase: XCV Weight: 4g
Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 1.7 x 1.4cm; 1.8cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

Special find no: 2627 Context: 76nw
Stratigraphic Phase: XCV Weight: 50g
Description: Base sherd of amphora; narrow flaring shaft with flaring base; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 5 x 4.7cm; 1cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?
[Fig. 5.2]

Special find no: 8615 Context: 74sw
Stratigraphic Phase: XCIV Weight: 54g

Description: Body sherd; interior bears bitumen coating; exterior bears white slip.
Technique: Earthenware with thin white slip on exterior and bitumen coating on interior.
Material: Buff earthenware with sand-tempered fabric.
Dimensions: 7.8 x 6cm; 0.9cm thick.
Date: 5th - 9th century Provenance: Iraq or Iran?

5.3 East Asian ceramics

A total of 21 East Asian glazed sherds were recovered from trench ASW2. As indicated in Table 5.3 (The East Asian glazed ceramics), this number is fairly evenly split between Xing and Ding wares and Yue wares, while there are only three examples of Changsha painted stoneware and two examples of coarse grey stoneware. The highest concentration of sherds, 16, has been found in periods C, D & E, whilst a further 5 sherds were recovered from period B. The collection is fairly consistent in date and centres on the ninth to tenth centuries AD in parallel with the West Asian glazed ceramics. The authors are extremely grateful to Rose Kerr, of the Victoria and Albert Museum, for the identification of the East Asian glazed wares.

5.3.1 Changsha painted stoneware

As all the examples of this painted stoneware recovered from ASW2 were body sherds, we are unable to suggest the complete forms. Despite the small size and undiagnostic nature of the forms, they have been identified as late Tang-period wares from the Changsha region of Hunan. The sherds all bear a white slip on the interior and, at least, a partial slip on the exterior. The artefacts sfs 1315 and 2139 both have pigment decoration, the former in brown, the latter in green and brown; but sf 1915 has no decoration whatsoever. Typically the pigments have blurred into the glaze at the edges. A total of three small sherds of this category were recovered, all from period C, D & E. Similar sherds have been recovered from Mantai (Carswell and Prickett 1984: 64), Siraf (Tampoe 1989: 54-6) as well as from the Abhayagiri monastery at Anuradhapura (Guy 1986: 10).

Special find no: 1315 Context: 88ne
Stratigraphic Phase: CXV Weight: 2g
Description: Wall sherd; interior brown stripes with yellowish glaze; exterior brown expanse with yellowish glaze; crackled glaze.
Technique: Pottery; stripes of pigment on white slip under yellowish transparent glaze.
Material: Stoneware.
Dimensions: 2.4 x 1.8cm; 0.4cm thick.
Date: 9th century Provenance: Changsha, S.W. China
[Plate 1.1]

Special find no: 2139 Context: 285ne
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; interior brown and green stripes with yellowish glaze; exterior with partial yellowish glaze; smooth crackled glaze.
Technique: Pottery; stripes of pigment on white slip under yellowish transparent glaze.
Material: Stoneware.
Dimensions: 3.2 x 1.5cm; 0.4cm thick.
Date: 9th century Provenance: Changsha, S.W. China
[Plate 1.1]

Special find no: 1915 Context: 324ne
Stratigraphic Phase: XCV Weight: 3g
Description: Wall sherd; interior and exterior undecorated with yellowish glaze; crackled glaze.

Technique: Pottery; white slip under yellowish transparent glaze.
Material: Stoneware.

5.3.2 Xing and Ding white wares

A noticeable category, they have a fine white porcelain body and a thin, even transparent glaze. They all appear to be North Chinese Xing wares with the possible exception of sf 6069. This sherd, with its ivory white body, may represent an example of an early Ding ware from the same region. It is possible to ascribe a date of between the ninth and tenth centuries AD to both wares. A total of ten very small sherds of this category were recovered from ASW2, three from period B and seven from period C, D & E. It is interesting to note that Ding ware is equally extremely rare at Siraf, where only two sherds were identified (Tampoe 1989: 67).

Special find no: 1325 Context: 9sw
Stratigraphic Phase: CVI Weight: 2g
Description: Wall sherd; white porcelain; glassy, slightly bubbly glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: 2 x 1.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China
[Plate 1.1]

Special find no: 349 Context: 41
Stratigraphic Phase: C Weight: 4g
Description: Wall sherd; white porcelain; smooth glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: Width 2.5cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 171 Context: 63nw
Stratigraphic Phase: XCVI Weight: 4g
Description: Wall sherd; white porcelain, smooth glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: Width 2cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 6222 Context: 313sw
Stratigraphic Phase: XCV Weight: 0.1g
Description: Small wall sherd; white porcelain; smooth glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: Width 0.5cm; 0.2cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 6069 Context: 296ne
Stratigraphic Phase: XCV Weight: 11g
Description: Body sherd; white porcelain; fine, smooth glaze; outer side bears spur mark; inner side has horizontal coils mouldings.
Technique: Ivory white porcelain with transparent glaze.
Material: Ivory white porcelain.
Dimensions: 4.8 x 3.6cm; 0.5cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 2631 Context: 292ne
Stratigraphic Phase: XCV Weight: 4g
Description: Thick wall sherd; white porcelain; smooth, cracked glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: 2 x 1.5cm; 0.8cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 2244 Context: 78se
Stratigraphic Phase: XCV Weight: 2g
Description: Tapered rim sherd; smooth glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.

Dimensions: 2.2 x 1.5cm; 0.7cm thick.
Date: 9th century Provenance: Changsha, S.W. China
Dimensions: 3 x 1.5cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China
[Fig. 5.2]

Special find no: 1166 Context: 92sw
Stratigraphic Phase: XCV Weight: 3g
Description: Three wall sherds; white porcelain; smooth glaze on each side with horizontal incisions.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: Each width 1cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 773 Context: 56
Stratigraphic Phase: XCV Weight: 1g
Description: Thin tapered rim sherd; white porcelain; smooth glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: 2 x 1.5cm; 0.2cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 717 Context: 182se
Stratigraphic Phase: XCV Weight: 2g
Description: Small body sherd; white porcelain; smooth transparent glaze.
Technique: White porcelain with transparent glaze.
Material: White porcelain.
Dimensions: 1.7 x 1.5cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China

Special find no: 2272 Context: 158nw
Stratigraphic Phase: XCV Weight: 6g
Description: Body sherd; white porcelain; smooth transparent glaze; some iron discoloration.
Technique: White porcelain with transparent glaze.
Material: White porcelain
Dimensions: 2.6 x 1.8cm; 0.6cm thick.
Date: 9th - 10th century Provenance: Hebei, N. China
[Plate 1.1]

5.3.3 Yue green ware

A further group is represented by the green wares. They all have a uniformly fine mid-grey stoneware body and a very thin, even, olive glaze. The sherds are also rather small, and so it is difficult to gauge vessel types. They represent typical Yue green wares from the kilns of Zhejiang province in S.E. China and can be dated to between the ninth and tenth centuries AD. A total of six small sherds of this category were recovered from ASW2: one from period B and five from period C, D & E. Sherds of this ware have also been recovered from Siraf (Tampoe 1989: 51-4), Mantai and Polonnaruwa, as well as from the Abhayagiri and Jetavana monasteries in Anuradhapura (Prickett 1990: 83).

Special find no: 75 Context: 27se
Stratigraphic Phase: C Weight: 4g
Description: Tapered, everted rim sherd; grey body; glazed.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: 3 x 3cm; 0.3cm thick.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China
[Fig. 5.2]

Special find no: 5255 Context: 296
Stratigraphic Phase: XCV Weight: 0.94g
Description: Body sherd; grey body; fine cracked glaze.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: 1.5 x 1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China

Special find no: 2673 Context: 292ne
Stratigraphic Phase: XCV Weight: 2g
Description: Irregularly shaped sherd, possibly handle; part glazed; grey body.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: Width 1.5cm.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China

Special find no: 1915 Context: 324ne
Stratigraphic Phase: XCV Weight: 3g
Description: Body sherd; grey body; finely cracked glaze.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: 2 x 1.5cm; 0.7cm thick.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China

Special find no: 1885 Context: 332se
Stratigraphic Phase: XCV Weight: 5g
Description: Body sherd; grey body; fine glazed.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: 3.5 x 2cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China
[Plate 1.2]

Special find no: 346 Context: 87sw
Stratigraphic Phase: XCV Weight: 4g
Description: Body sherd; grey body; glazed.
Technique: Stoneware with olive green glaze.
Material: Fine grey stoneware.
Dimensions: 4.1 x 2.1cm; 0.4cm thick.
Date: 9th - 10th century Provenance: Zhejiang, S.E. China
[Plate 1.2]

5.3.4 Coarse grey stoneware

This is a very small group in the collection with only two sherds, a base and a rim. They are both coarse stonewares bearing an olive-green glaze. As the glaze is hard and adheres well to the highly fired stoneware body, we may suggest that these two examples are either Chinese or North Vietnamese, but they cannot be more accurately dated than to between the eighth and twelfth centuries AD. Both sherds appear to belong to storage jar forms or *martavans*. They are perhaps 'Dusun' stonewares, although the vagaries of this definition can be found in Harrison's statement that "the term has locally been used for big jars, but the ware comes in all sizes and a moderate range of shapes" (Harrison 1965: 69). A total of two sherds of this category were recovered from ASW2 – one from period B and one from period C, D & E. Sherds of 'Dusun' type olive-green glazed grey stonewares have also been recovered from Mantai (Carswell and Prickett 1984: 64), as well as from Siraf in the Gulf and Banbhore on the Pakistan coast (Whitehouse 1968: 18; Tampoe 1989: 47).

Special find no: 182 Context: 41
Stratigraphic Phase: C Weight: 45g
Description: Jar rim sherd, slightly everted; grey body; glazed both sides.
Technique: Stoneware with olive green glaze.
Material: Coarse grey stoneware.
Dimensions: 6.6 x 4.5cm; 1cm thick.
Date: 8th - 12th century Provenance: China or N. Vietnam
[Plate 1.2; Fig. 5.2]

Special find no: 1744 Context: 320ne
Stratigraphic Phase: XCV Weight: 13g
Description: Flat base sherd; grey body; partial glazing on exterior.
Technique: Stoneware with olive green glaze.

Material: Coarse grey stoneware.
Dimensions: 4.1 x 2.6cm; 0.5cm thick.
Date: 8th - 12th century Provenance: China or N. Vietnam
[Fig. 5.2]

5.4 European ceramics

The European glazed ceramics represent the smallest category of the collection, with only two examples from period A (see Table 5.4). Sherds of white bone china, they are clearly datable to the twentieth century and are most probably imports from the United Kingdom.

Special find no: 801 Context: 4sw
Stratigraphic Phase: CXIV Weight: 23g
Description: Rim and wall sherd of dish; smooth, cracked glaze; blue stripes.
Technique: White bone china with transparent glaze.
Material: White bone china.
Dimensions: 7.5 x 5.5cm.
Date: Modern Provenance: UK

Special find no: 802 Context: 4sw
Stratigraphic Phase: CXIV Weight: 13g
Description: Dish sherd (rim and wall); white glaze, blue stripes. Identical to 801.
Technique: White bone china with transparent glaze.
Material: White bone china.
Dimensions: 6 x 4cm.
Date: Modern Provenance: UK

5.5 Locally manufactured glazed ceramic tiles

There is a single category of locally manufactured glazed ceramics from trench ASW2: glazed tiles (see Table 5.5). They all consist of local coarse earthenware tiles coated with an uneven coloured glaze. Ten sherds were recovered, eight from period C, D & E and two from period A, the latter being clearly of an intrusive nature.

The glazed earthenware tiles from ASW2 are by no means an unknown phenomenon at the Citadel of Anuradhapura. Parānavitana encountered turquoise, white, yellow and red glazed tiles in addition to glaze lumps whilst excavating both Building B and the Mahapali (1936: 4, 33). One of the more interesting questions associated with their discovery is their possible origin – import or local. In an attempt to answer this question, Parānavitana had a chemical analysis of tile glaze and glaze lumps from the former site conducted. The results suggested that both were of a similar local source although it was also stated that "It is quite conceivable that the art (the manufacture of glazes) was originally learnt from some foreign traders" (ibid.). Numerous glazed roof tiles have also been recovered from the Abhayagiri Vihara complex at Anuradhapura (Hocart 1924: 3; Wickramagamage 1984: 41; Wickramagamage *et al.* 1984: 364). The coloured glazes include light yellow, white, dark red, green and turquoise (Wickramagamage 1984: 41; Wickramagamage *et al.* 1984: 364). The excavators noted that numerous tiny pieces of glaze and misfired glazed tiles were recovered from an area west of the Bodhighara, suggesting that glazing activities had probably occurred there (ibid.: 347, 364). Recent chemical analysis carried out on glazed tiles from the Abhayagiri has suggested that, unlike the results of the earlier analysis, the glaze was imported but that the tile was made locally (Abeyaratne and Wickremasinghe

1990: 4). Indeed, due to similarities between its chemical composition and that of Tang glazes, it has even been suggested that the glaze was imported from China during the Tang period (AD 618–906) (ibid.: 6). It is also interesting to note that a single example of a glazed wall tile was also recovered from the Abhayagiri Vihara at Anuradhapura (Wijeyapala and Prickett 1986: 20). It has been identified as a later lustre ware tile with a white frit body, with an opaque white glaze over-painted with a brown metallic lustre painting and then a clear glaze (ibid.). In addition to finds of glazed tiles at Anuradhapura, examples have also been found at Kantarodai (Pieris 1922: 22). It is generally agreed that glazed tiles were introduced between AD 100 and 300 (Deraniyagala 1992: 713, 724) and went out of use by the Late Anuradhapura period (Wickramagamage *et al.* 1984: 364).

Special find no: 5226 Context: 4sw
Stratigraphic Phase: CXIV Weight: 56g
Description: Incomplete roof tile; upper surface with horizontal ridge and turquoise glaze.
Technique: Coarse earthenware with coloured glaze.
Material: Coarse red earthenware.
Dimensions: 7.2 x 6cm; 1.4cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 642 Context: 79se
Stratigraphic Phase: CXVII Weight: 14g
Description: Incomplete roof tile; upper surface with horizontal ridge and turquoise glaze (some large bubbles).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 3.8 x 2.1cm; 1.3cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 30100 Context: 107sw
Stratigraphic Phase: XCV Weight: 60g
Description: Incomplete roof tile; upper surface with horizontal ridge and turquoise glaze (some small bubbles).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 7.2 x 4.1cm; 1.5cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 8595 Context: 256
Stratigraphic Phase: XCV Weight: 29g
Description: Incomplete roof tile; upper surface with turquoise glaze (some small bubbles).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse red earthenware.
Dimensions: 4.5 x 4cm; 1.7cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 8215 Context: 134ne
Stratigraphic Phase: XCV Weight: 35g
Description: Incomplete roof tile; upper surface with horizontal ridge and turquoise glaze (some small bubbles).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 5.2 x 3.3cm; 1.6cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 2529 Context: 344nw
Stratigraphic Phase: XCV Weight: 14g
Description: Incomplete roof tile; upper surface with horizontal ridge and dark red glaze (some large bubbles).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 3.9 x 2.6cm; 1.5cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 1483 Context: 103nw
Stratigraphic Phase: XCV Weight: 8g

Description: Incomplete roof tile; upper surface with horizontal ridge and pale turquoise glaze.
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 2.9 x 2.1cm; 1.5cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 1354 Context: 80sw
Stratigraphic Phase: XCV Weight: 15g
Description: Incomplete roof tile; edge of tile bears blue glaze (up to 0.2cm thick).
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 3.5 x 2.5cm; 1.2cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 423 Context: 76ne
Stratigraphic Phase: XCV Weight: 7g
Description: Incomplete roof tile; edge of tile bears turquoise glaze.
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 3.2 x 1.5cm; 1.3cm thick.
Date: 75th - 11th century Provenance: Local

Special find no: 407 Context: 76
Stratigraphic Phase: XCV Weight: 8g
Description: Incomplete roof tile; upper surface with horizontal ridge and turquoise glaze.
Technique: Coarse earthenware with coloured glaze.
Material: Coarse orange-red earthenware.
Dimensions: 2.8 x 2cm; 1.1cm thick.
Date: 75th - 11th century Provenance: Local

5.6 Dating the glazed ceramics

The glazed sherds from ASW2 are of clear assistance in establishing a clear chronology for the later part of the sequence, and the following section will attempt to assess the dating evidence from the above 12 categories. The dating and provenancing of early Islamic pottery is not always very accurate or reliable. Recently Rogers (1994: 37) assessed the overall situation as follows:

The stylistic groups of pottery which fill our museums, identified by toponyms often fifty years old which are widely agreed to be fictitious, are still unchallenged. Conversely, the charting of kiln-sites and pottery sequences with suitably fine chronological sequences is rudimentary.

Among the West Asian glazed pottery types present at Anuradhapura, the most satisfactorily dated are the lustre wares. There are a number of reasons for this. From an aesthetic point of view, they have been perceived as some of the most appealing works of early Islamic potters; they are well represented in museum and private collections, and have attracted a high degree of art-historical interest. Stylistic trends in early lustre ware have been quite thoroughly studied, and it has also been conspicuous in some important archaeological sequences.

Islamic lustre ware is in fact inherently rewarding to close study. Amongst all the products of early Islamic potters, lustre ware was the most technically and artistically accomplished. Unlike the common and abundant 'Sasanian-Islamic' wares, which were relatively cheap everyday objects, widely produced in the Iranian world, the production of lustre wares must have been restricted. There is widespread agreement among scholars that the manufacture of lustre ware was a

difficult and highly accomplished skill, probably restricted to a circle of elite craftsmen who maintained some sort of monopoly on the technique of manufacture. Caiger-Smith is an especially powerful exponent of this theory, being both an art historian and a practising potter (1985). Hence, scholars in the field tend to maintain that known varieties of lustre ware can be attributed to a restricted set of schools; and by stylistic analysis, hopefully backed up with some archaeological evidence, a clear line of development can be traced in the history of its production.

The lustre-ware sherds from ASW2 clearly seem to come from the Abbasid group. Some of the distinguishing stylistic features of Abbasid lustre painting include a background of dots, circles and small stripes (Ettinghausen and Grabar 1994: 114). These features are apparent on the examples catalogued in section 5.2.1 above. Abbasid lustre wares also typically have a smooth yellow earthenware body, as do all of these. A number of the sherds also bear lustre designs in polychrome, as opposed to a more or less monochrome palette. Polychrome lustre is generally held to be unique to the Abbasid group and indeed some scholars, such as Caiger-Smith, have maintained that the polychrome style represents an early phase of Abbasid lustre painting (Caiger-Smith 1985: 31). Although fragments of Abbasid lustre ware are found all over the Islamic world, the source of their manufacture is generally attributed to Iraq. Finds at major sites in Iraq, such as Samarra and Basra, are numerous. Susa, in western Iran, also has its supporters as a possible centre of production. However, confirmed findings of kilns where lustre ware was produced are fairly elusive. The largest quantities of early lustre ware have been brought to light at Samarra, the capital of the Abbasid empire for much of the ninth century AD (836–92) (Allan 1971: 13).

Abbasid lustre ware and its imitations are generally agreed to date from the ninth, and possibly the tenth, century. The beginnings of Abbasid white tin-glazed pottery in general are often thought to follow on from the importation of Chinese white ceramics into the Islamic world (Philon 1980: 64; Allan 1971: 8–9). This acquaintance with Tang white wares, and consequent imitation of them, seems to have happened in the ninth century AD (Allan 1971: 8). There are a few fixed points of reference for dating Abbasid lustre wares. Lustre tiles were found at three Abbasid palaces in Samarra, the earliest of which seems to be the Jawsaq al-Khaqani, probably built during the reign of Mutasim (AD 833–42). A more definite date is provided by the set of tiles set into the *mihrab* of the Great Mosque of Kairouan in Tunisia, which are datable to the year AD 862–3; according to the generally held view, these were made in Iraq (ibid.: 13). There is no clear evidence that this school of lustre ware continued production into the tenth century, but it seems a reasonable possibility, especially given the apparent (if debatable) continuity of lustre ware styles from Abbasid Iraq to early Fatimid Egypt. As indicated by Table 5.2, 28 of the 34 sherds of this ware recovered from ASW2 came from the fills of robber pitting phases C, D & E. While most of the finds of lustre ware from ASW2 were recovered from redeposited contexts, like the fills of robber pits or old land surfaces

and foundations, sf 148 was recovered from the fill of foundation slot 230, which was constructed during stratigraphic phase XCVI of structural phase B1.

Abbasid lustre ware is much better known than most forms of early Islamic pottery, yet it should be apparent from the above discussion that the guidelines for assessing its chronology and provenance are still rather vague. Common wares of low technical accomplishment and artistic quality, such as the alkaline turquoise-glazed earthenwares of the 'Sasanian-Islamic' group, defy close dating. The latter group represents a markedly lower level of pottery manufacture, widely produced, and maintaining a continuity of basic features from Parthian to early Islamic periods (Ettinghausen 1939; Whitehouse 1968: 14). Certainly the discovery of such sherds at Sirkap, Taxila, confirms that they were present in South Asia as early as the first quarter of the first millennium AD (Marshall 1951: 406–408). At ASW2 three sherds were recovered from contexts within structural phase B5, sfs 1331 and 1330 from within the fill of posthole 71, whilst sf 892 was recovered from the fill of posthole 69. Special find 104 came from the fill of phase B3 pit 109, while sf 281 was recovered from a B1 ash deposit and sf 885 from the fill of slot 230 in the same phase. Only two of the possible Parthian sherds were recovered from features: both sf 8590 and sf 2378 were found within the debris collapse of the structure of phase G5. This early presence of blue-glazed wares is paralleled at Siraf, where such sherds were found in period I, which is dated to the first half of the first millennium AD (Tampoe 1989: 77–82).

The lead-glazed earthenwares found at Anuradhapura are also difficult to classify accurately. Monochrome lead-glazed wares can date from pre-Islamic times in the Middle East (Allan 1991: 10). However, it seems that the beginnings of using polychrome lead glazes (glazes with splashed green and brown colouring) on vessels can be discerned from the eighth century AD, according to the findings of the American Research Institute in Cairo (ibid.). Some of the lead-glazed sherds from ASW2 show polychrome decoration. At the other end of the time-scale, simple lead-glazed wares remained common in the Middle East throughout the mediaeval period. Examples from this group were found in levels dating to between the ninth and tenth centuries AD at Kilwa on the East African coast (Chittick 1974: 303). A date of between the ninth and twelfth centuries AD has therefore been ascribed to this category. As with the other West Asian ceramics, the majority of lead-glazed wares were recovered from secondary contexts at ASW2. However, sf 1176 was recovered from the fill of structural phase B3 pit 94 and sf 159 from the fill of structural period B1's slot 234.

The remaining group of ASW2's Islamic pottery types that can be discussed is that of the non-lustred, white, tin-glazed wares. This is a relatively distinctive group, related in technique and vessel type to the lustre wares. Both types employ the white tin glaze and the relatively smooth yellow earthenware body. A common vessel type for both was the conical bowl: a vessel type that may perhaps be discerned from the Anuradhapura sherds. This type of pottery is again generally attributed to Iraq, and possibly Iran. Its origins are also thought to

be linked with the import of Chinese white wares and high fired porcelains into Iraq in the ninth century (Allan 1971: 8). A large proportion of them bear some splashed green colouring or blue in-glaze colouring (ibid.: 10). It is thus significant that a couple of the ASW2 sherds also display this feature. The dates of Abbasid white wares are often the ninth and tenth centuries. In the important excavations at Siraf on the Persian Gulf conducted by Whitehouse, these white wares were found in contexts attributed to the ninth–eleventh century AD (Whitehouse 1968: 15, 21; 1969: 60; 1971: 4; Tampoe 1989: 72–3). Similar dates are reported by Chittick for the finds of this group in Kilwa's period Ia (Chittick 1974: 302). Most of the finds of this ware from ASW2 come from the fills of robber pits, foundations and old land surfaces, where they are probably of a mixed nature. A number however were recovered from sealed features. Sf 94 was recovered from a pit cut during stratigraphic phase CIII of structural phase B3, and a further three sherds were recovered from structural phase B1; sf 2262 was recovered from the fill of B1 slot 242, sf 889 from the fill of B1 slot 230, and sf 2254 from the fill of B1 pit 148. A further sherd, sf 1587, was recovered from the fill 42 of robber pit 275. As this fill also contained structural period C wall 263, it allows us to suggest that the structure from which the wall came was probably destroyed by the ninth to tenth centuries AD. Buff ware, as stated above, has been identified as a Sasanian-Early Islamic category and broadly dated to between the fifth and ninth centuries AD by Wijeyapala and Prickett (1986: 17). The majority of sherds of this ware were recovered from very mixed fills and only two were recovered from smaller features. Sf 8608 was recovered from the fill of phase B3 pit 94 and sf 8613 from the fill of phase B1 slot 242.

The East Asian ceramics, by comparison, appear to be rather better dated and provenanced. In most cases it is even possible to identify the provinces in which they were manufactured. Undoubtedly this is due to the research work carried out on kiln sites within the People's Republic of China. This is best epitomized by the publication *Kiln Sites of Ancient China* (Hughes-Stanton and Kerr 1981), which studied kiln sites and discarded sherds in their vicinity. The presence of Changsha painted stonewares at Anuradhapura generally illustrates the increased international trading from China following its unification under the Tang dynasty (r. AD 618–906) (Guy 1986: 6). Produced in Changsha in southwest China and traded from ports of southern Zhejiang and Guangzhou, this ceramic ware is also found at Nishapur in Iran and Manda in Kenya (ibid.). The identification of ninth–tenth-century Ding and Xing wares from Hebei province in northern China suggests that, although Guy favours their export via the overland silk route (ibid.: 70), some were undoubtedly being shipped on the southern, maritime routes as well. Of similar date are the Yue greenwares from Zhejiang in southeastern China. However, they are useful for dating as they were replaced by Longquan greenwares by the middle of the tenth century AD (ibid.). Only one of the 22 East Asian sherds came from a structural feature: sf 171, a Xing ware sherd, was recovered from the fill of B1 slot 238. It has been attributed to between the ninth

and tenth centuries AD. The building of structural phase B1 is therefore of great interest, having in its wall slots and rubbish pits sherds of Xing ware, 'Sasanian-Islamic' blue glazed ware, buff ware, Islamic tin-glazed white ware and lead-glazed ware. It appears that the pillared hall was robbed of building material during the early part of the ninth century and the tenth century, and that the locality itself was then reoccupied shortly afterwards when the squatter occupation of structural period B began.

5.7 Conclusion

The eleventh century AD forms an important watershed in the history of Anuradhapura, as the city was sacked by the Cholas in AD 1017 and, according to historical tradition, abandoned as a royal capital (Codrington 1939; De Silva 1981). It is of interest therefore to establish whether the archaeological sequence from ASW2 supports this view of Anuradhapura's demise. Leaving aside other forms of evidence, the glazed sherds have some relevance to this question. The more distinctive and accomplished types of West Asian glazed ceramics seem to date from the ninth to tenth centuries AD (lustre ware, tin-bodied white glazed wares and lead-glazed wares), while important luxury types of later Islamic pottery: sgraffiato and frit-bodied wares for example, appear to be conspicuous by their absence. This pattern is paralleled by the East Asian ceramics. The ninth to tenth century AD diagnostic wares (Changsha, Xing, Ding and Yue) are present, but later wares, Longquan greenwares for example, are absent. This might seem to amount to some sort of *prima facie* evidence in support of the catastrophic view of the Chola conquest: that Anuradhapura, effectively, may have abandoned involvement in luxury trade after this period and generally ceased to be a major urban centre. A similar pattern is found at Mantai, where a single sherd of late sgraffiato dating to the mid-eleventh century AD was recovered (Carswell and Prickett 1984: 55). This pattern is generally found island-wide and Prickett states "During the eleventh to thirteenth centuries, the Sri Lankan sites contain almost no contemporary Near Eastern pottery" (1990: 71). Polonnaruwa, the successor capital to Anuradhapura, also mirrors the decline of trade with the Islamic world, and Mikami notes that the East Asian ceramics at the site were mainly of the Sung (Song) dynasty (AD 960–1279) and that there were none after that date (in Prematilleke 1985: 81). This collapse in Islamic, and to a lesser extent Chinese, trade may be partly a reflection of the shift in maritime trade from the Gulf to the Red Sea with the move of the Caliphate to Egypt (Tampoe 1989: 112) or it may be the result of the shift of major trade routes to Chola ports in South India, such as Nagapattanam (ibid.: 109). Certainly with the advent of Chola sovereignty over Sri Lanka it is to be expected that any excess surplus available for trading would have been redirected to the mainland.

The presence of West Asian glazed ceramics, especially the luxury types, and indeed of Chinese wares would seem to demonstrate that Anuradhapura, in its later heyday, had a significant role to play in the Indian Ocean economy. For useful summaries of possible

imports and exports see Tampoe (1989) and Prickett (1990). The West Asian pottery types found at the site seem to correlate well with what has been found at a number of other significant urban sites in the Western Indian Ocean, although it is interesting to note that, while Siraf had 1 East Asian sherd to every 10 West Asian sherds (Tampoe 1989: 47, 31), ASW2 yielded 1 for every 20. A particularly close and useful comparison may be made with Mantai, a major port on the north-west coast of Sri Lanka. The site has a wide variety of Tang and Song ceramics and West Asian ceramics, in the form of 'Sasanian-Islamic' alkaline glazed wares, and Abbasid tin-glazed wares (including lustre wares) (Carswell and Prickett 1984: 52–8). The general absence of later Islamic fine pottery also prompted the excavators to suggest that the Chola invasion caused instability and economic decline (*ibid.*: 60).

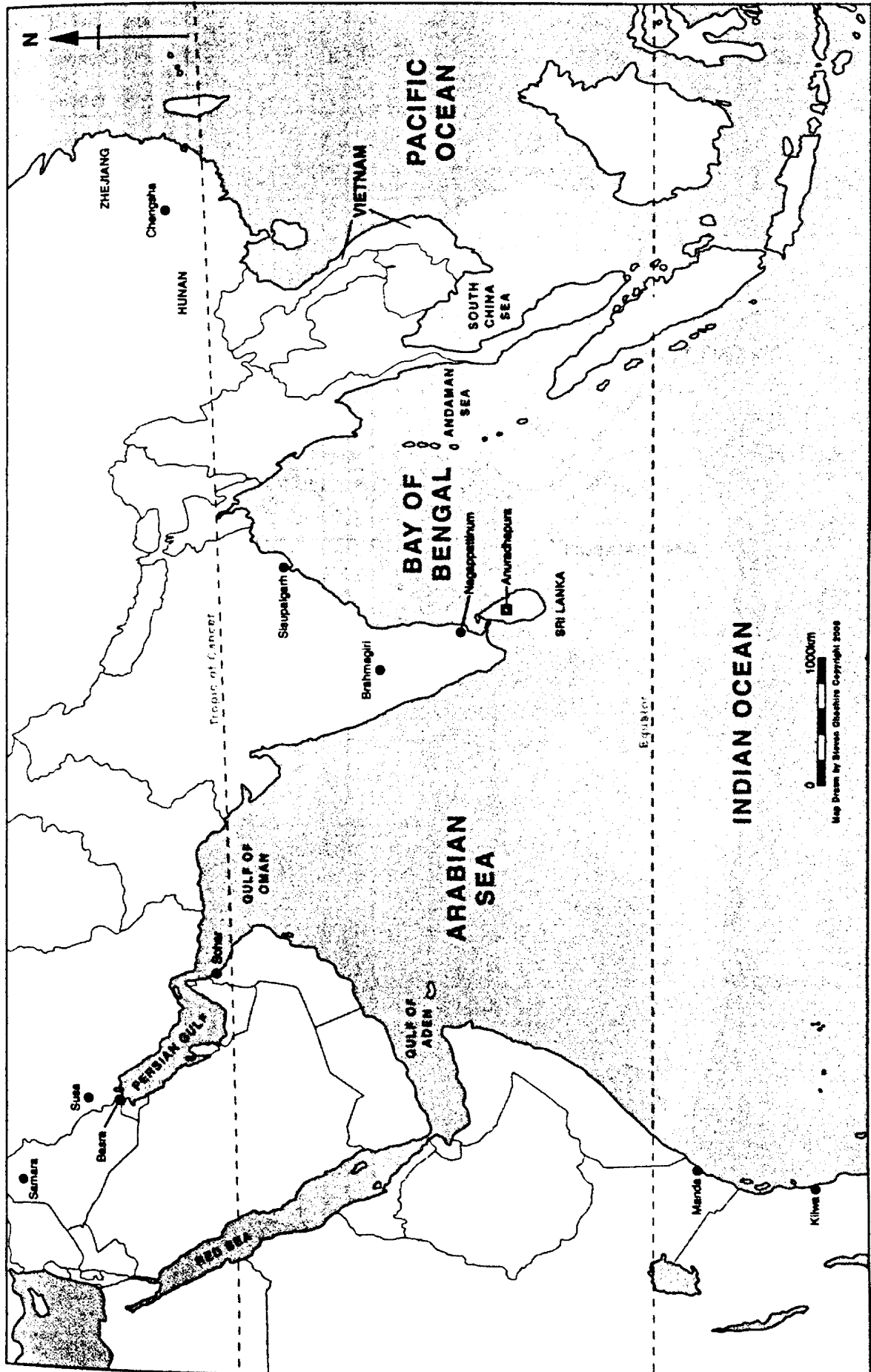
The number and quality of imported early mediaeval glazed ceramics led the excavators to identify Mantai as an important midway stage in the trade between the Islamic and the Chinese worlds: in Prickett's words, "a pivotal entrepot and transshipment centre in the maritime commercial networks of the early medieval period" (*ibid.*: 61). Prickett went on to state (*ibid.*):

... the imported ceramic material has extremely close parallels with that which has been found at the other western maritime entrepôts of the China trade thriving in the 8th to the 11th centuries AD – Siraf and Basra on the Persian Gulf coast, Sohar on the Omani coast, Banbhore (Daibul) in Sind, Manda and Kilwa on the East African coast.

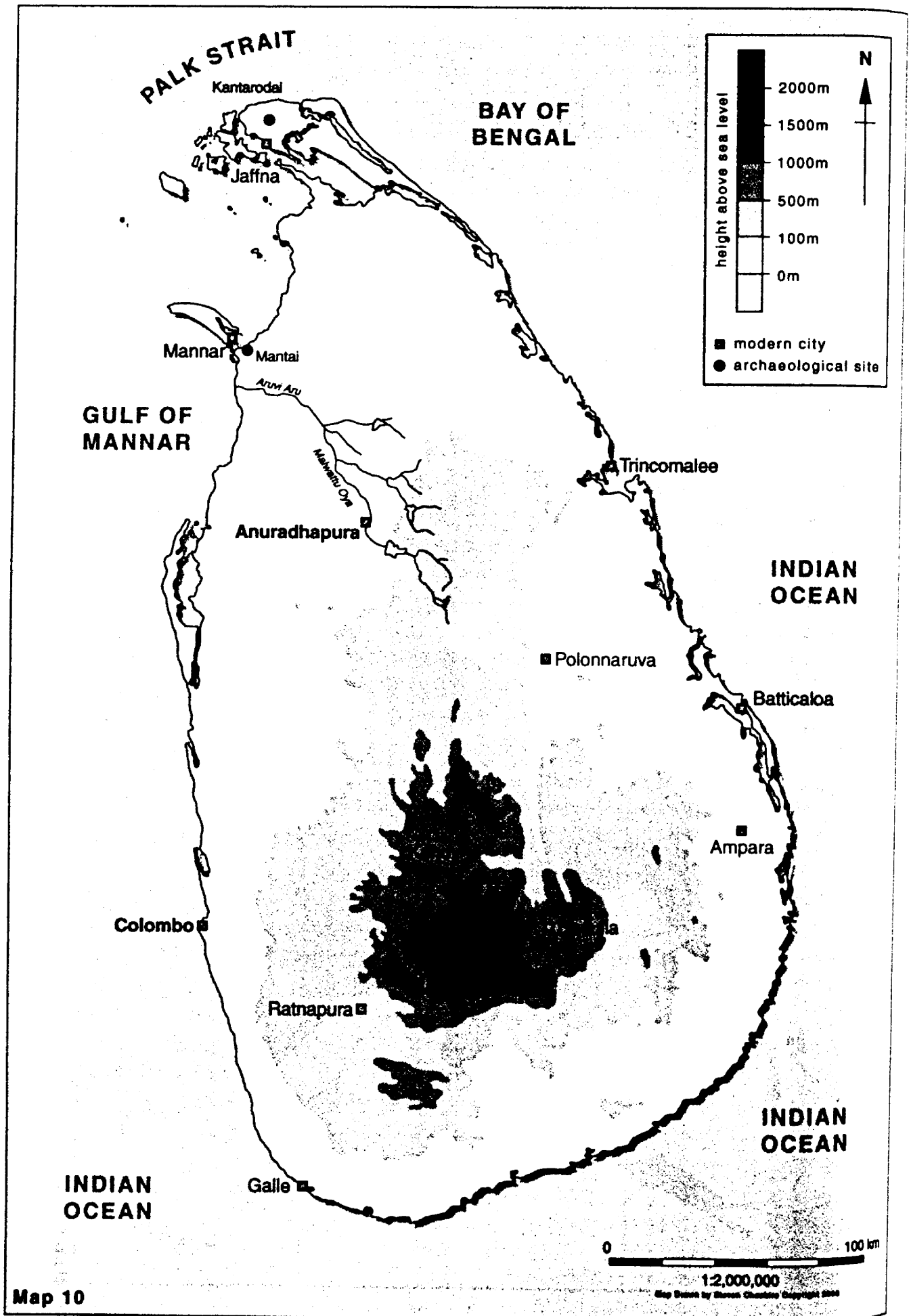
Similarities in the glazed ceramic assemblages between Anuradhapura and Mantai also demonstrate that, as well as being an Indian Ocean commercial centre in its own right, the latter site should not be overlooked as Anuradhapura's main port – bearing a relationship to the Sinhalese capital not dissimilar to that between Ostia and ancient Rome. The position of Anuradhapura as a temporal capital, as a repository of the Buddha's tooth, collar bone and alms bowl and as a manufacturing centre

for ivory, bone, semi-precious stone and glass objects undoubtedly strengthened the role of Mantai as a port. Trade and exchange, pilgrimage and courtly gifts clearly all played an important role. An example of the latter may be represented by a tenth-century Chinese *ying ch'ing* porcelain box for holding seal-vermilion which was found in the excavations at the Daladage in the Citadel (Paranavitana 1936: 21). Mantai is one of the closest points on the sea to Anuradhapura, and there is a semi-navigable river route between the two on the Malwattu oya. It is also interesting to note that this was the route taken by Robert Knox in the 1680s whilst escaping from Anuradhapura to the Dutch fort at Mannar (Knox 1911).

The evidence of East and West Asian glazed ceramics at Anuradhapura and Mantai cannot reveal more about the commercial activities of either place in the mediaeval period than has already been summarized by Tampoe (1989) and Prickett (1990). However, there are other forms of evidence which help support the view that these commercial links with the Middle East were already present in the centuries leading up to the Islamic period. In an article entitled 'Sasanian maritime trade', Whitehouse and Williamson (1973) sought to prove that there was a colony of Sasanian merchants active at Mantai. A granite pillar inscribed with a 'Nestorian' cross – "a floreate type standing on a stepped pedestal from which emanate two ponds on either side of the cross like horns" – was also found during Ayrton's excavations in the north-eastern sector of the Citadel of Anuradhapura, which suggests that there might have been a similar community there (Hocart 1924: 51). Certainly, written evidence for Middle Eastern merchants and clerics being generally active as far to the east as China is abundant in the early Islamic period (Chaudhuri 1985: 49–50; Whitehouse 1968: 2–3; Whitehouse and Williamson 1973: 43). In conclusion it may be suggested that the trade established between Anuradhapura and the West and East Indian ocean in the late centuries BC reached its zenith in the ninth and tenth centuries AD, and continued until the site was abandoned as a capital in the eleventh century AD.



Map 9



Map 10

Table 5.1 Glazed ceramics

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
West Asian	number	14	81	203	4	4					306
	weight (g)	488	875.76	2422.53	36	8.4					3830.79
East Asian	number		8	13							21
	weight (g)		67	57.04							124.04
European	number	2									2
	weight (g)	36									36
Local tiles	number	2		8							10
	weight (g)	70		176							246
Total	number	18	89	224	4	4					339
	weight (g)	594	942.76	2655.57	36	8.4					4236.73

Table 5.2 West Asian glazed ceramics

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Lustre ware	number		6	27							33
	weight (g)		27	56.4							83.4
Imitation lustre ware	number		1								1
	weight (g)		1								1
White tin glaze	number	1	25	52							78
	weight (g)	9	199.3	320.8							529.1
Lead glaze	number	1	4	6							11
	weight (g)	28	38	96.53							162.53
Sasanian Islamic	number	3	29	76	4	4					116
	weight (g)	37	226.56	465.5	36	8.4					773.46
Undiagnostic	number	1	1	6							8
	weight (g)	4	10	35.3							49.3
Buff ware	number	8	15	36							59
	weight (g)	410	374	1448							2232
Total	number	14	81	203	4	4					306
	weight (g)	488	875.86	2422.53	36	8.4					3830.79

Table 5.3 East Asian glazed ceramics

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Changsha painted stoneware	number		3								3
	weight (g)		8								8
Xing and Ding white wares	number		3	7							10
	weight (g)		10	29.1							39.1
Yue green ware	number		1	5							6
	weight (g)		4	14.94							18.94
Coarse grey stoneware	number		1	1							2
	weight (g)		45	13							58
Total	number		8	13							21
	weight (g)		67	67.04							124.04

Table 5.4 European glazed ceramics

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Bone China	number	2									2
	weight (g)	36									36
Total	number	2									2
	weight (g)	36									36

Table 5.5 Locally manufactured glazed tiles

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Glazed tiles	number	2		8							10
	weight (g)	70		176							246
Total	number	2		8							10
	weight (g)	70		176							246

Glazed Ceramics

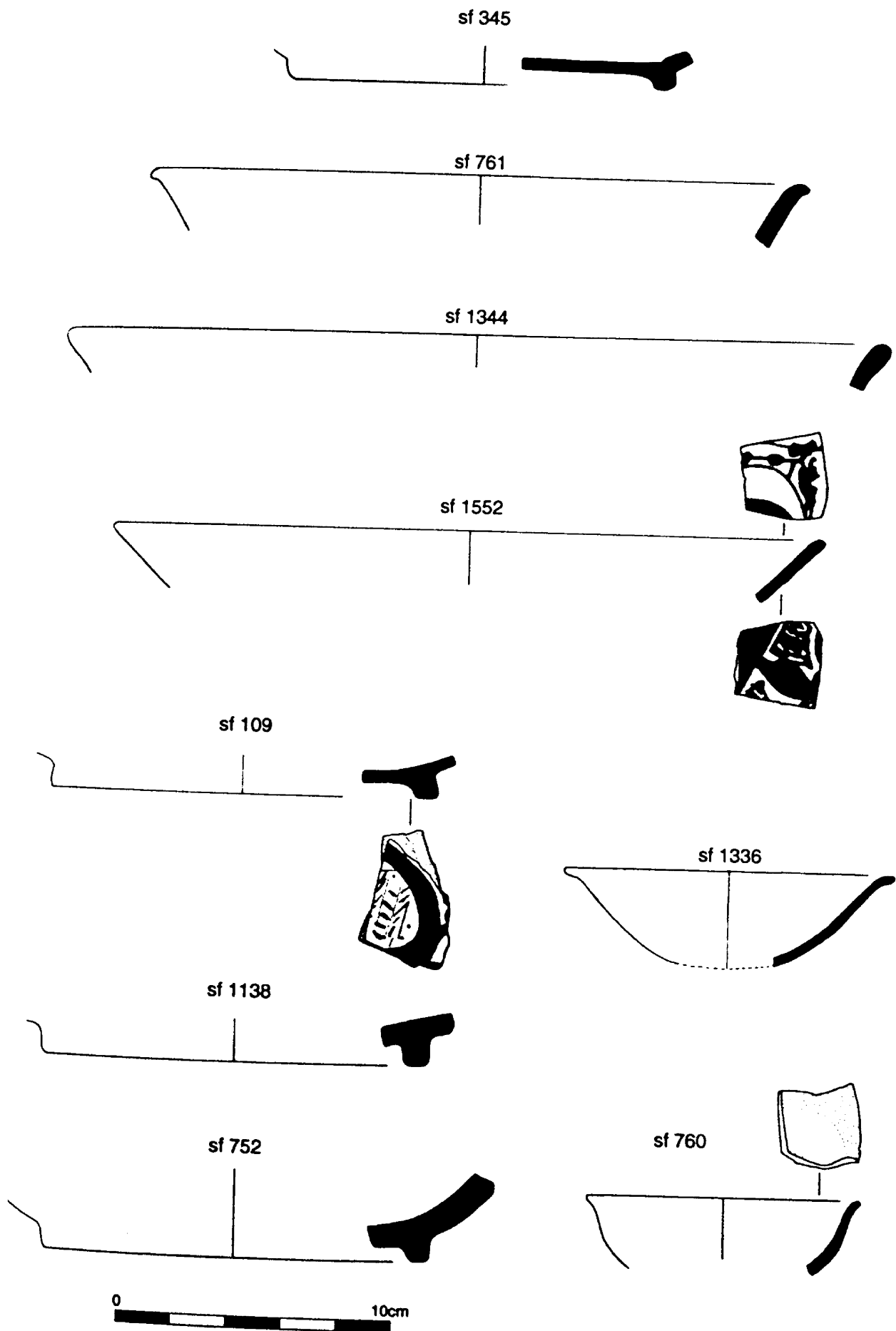


Figure 5.1 Glazed Ceramics

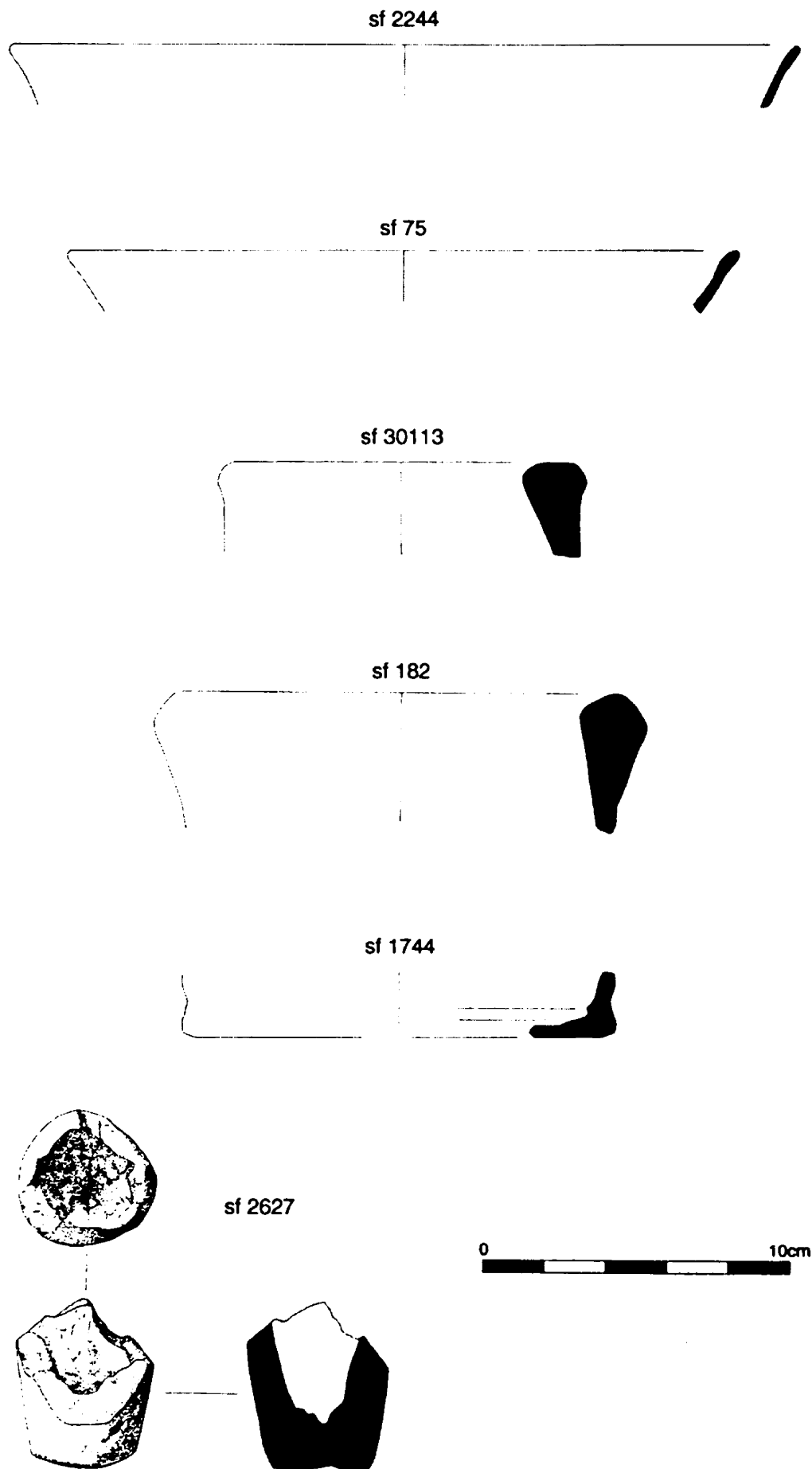


Figure 5.2 Glazed Ceramics

CHAPTER 6

UNGLAZED CERAMICS

Robin Coningham, Louise Ford, Steven Cheshire and Ruth Young

6.1 Introduction

The earliest unglazed ceramics found in trench ASW2 at Anuradhapura are ten sherds of coarse wares from phase K1 dating from between c. 840 and 460 cal. BC and the latest include 122 sherds of coarse ware, weighing 5,540 grams, from phase A2, which dates to between AD 600 and 1100 (Coningham 1999: xix) (see Tables 6.1, 6.2 and 6.3). The total weight of sherds analysed in this chapter amounts to 11,546.85 g of fine wares and a further 454,404.5 g of coarse wares. The long duration and the amount of material illustrate the importance of unglazed ceramic use at Anuradhapura as well as its potential for assistance in the relative dating of South Asian archaeological sites. In order to study these ceramics, a standardized classification system of unglazed ceramics needed to be adopted in order to allow for comparisons with other sites in Sri Lanka and India (see Maps 11 and 12). In view of the excellent sequence at ASW2, it is hoped that this chapter will provide a reference for future research and assist relative dating technique at sites where radiocarbon dates are lacking. Although one of the first attempts to produce a ceramic classification for Sri Lankan archaeology was completed as early as 1971 by Gunasekera *et al.* (1971), its reliance on museum exhibits for types reduced its use in the field when dealing with multi-period sites like Anuradhapura. Additionally, we found the very clear classification system developed by Kenoyer for the material from excavations at Vanakalai in northwest Sri Lanka equally unhelpful, as the material was notably later in date. A further problem is with individual scholars or projects producing their own unique classifications, as found in Begley's 1981 publication of Pomparippu on the west coast of Sri Lanka, but also repeated by Prematilleke (1982) and Bandaranayake (1984). This state of affairs promotes confusion when comparisons are attempted: for example, Rouletted ware is termed Type 1 by Wheeler (1946), Type 4 by Ragupathy (1987: 13), Type 16 by Deraniyagala (1972: 77) and Form 1 by Begley (1996: 226). As this excavation was intimately connected with Siran Deraniyagala's Anuradhapura Citadel Archaeological Project, we decided to model our own ceramic classification very closely on that developed by Deraniyagala for the city. Indeed, although unpublished, he has very generously shared his descriptions, examples and definitions with our ceramic analysis team. For all our coarse wares we have adopted his categories for both form and wares; however, in the case of the fine wares, we decided to link our catalogue more closely with Wheeler's

fine ware catalogue from Arikamedu (1946). We have taken this step because Wheeler's publication is still one of the most frequently referenced sources within the region, much more clearly identifiable in the field and usually far more defined in terms of chronology. It will also allow a very clear and quick reference for scholars working in adjacent areas. The coarser material will be discussed separately and will be catalogued according to Deraniyagala's classification of forms and wares. Generally speaking, our definition of fine wares and coarse wares is based on division according to sherd texture, that is the size of the grains within the ceramic paste utilized. According to petrological studies by Wentworth (Shepard 1965: 118), fine wares include grains that are between $\frac{1}{4}$ and $\frac{1}{2}$ mm in diameter, while medium wares are between $\frac{1}{2}$ and $\frac{3}{4}$ mm and coarse wares are anything above $\frac{1}{2}$ mm. In addition to the vessels, architectural elements, beads and bangles of clay are described and catalogued below. Where form numbers are provided but examples are not illustrated, please refer to figures 6.12-6.33 for illustrated profiles.

6.2 Fine wares

This section will describe and catalogue the main diagnostic fine wares and miscellaneous wares found in trench ASW2 at Anuradhapura. A total of 1,792 sherds of fine wares have been found and studied, weighing 11,546.85 g. These include grey ware, Rouletted ware (Arikamedu Type 1), Arikamedu Type 10, Arikamedu Type 18, amphorae, omphalos ware, Red Polished ware, Brown ware, white-slipped ware with red paint, Northern Black Polished ware, unslipped and/or pale body coloured ware, fine black-slipped ware and additional fine wares. Trench ASW2 has provided the opportunity to accurately date all these ceramic categories and this classification will allow for relative dating at other sites in South Asia. Of the 13 categories of fine wares, the dominant ware is Rouletted ware, represented by a total of 1,274 sherds. Rouletted ware diameters are, on average, 23.6 cm from a total of 264 rim sherds. The 'baby' Rouletted ware, on the other hand, has an average of 13 cm. Thin-section analysis has been carried out on selected sherds of Rouletted ware, grey ware, Type 10 and possible Hellenistic sherds (Krishnan and Coningham 1997). These sherds all came from structural periods G and H, which are dated to between c. 200 cal. BC and AD 130 cal. Mineralogically, it was found that the Rouletted ware, Type 10 and grey ware were all similar, while the possible Hellenistic sherds differed with a higher

quartz content (ibid: 934). This may indicate that different geological sources were exploited. However, texturally they are alike, which points to a similar clay paste preparation technique (ibid.: 934-5). More recent thin-section work of Rouletted ware and grey ware from Anuradhapura has supported Krishnan and Coningham's suggestion of mineralogical and textural similarities between these two wares (Ford 2000). This, in turn, supports the theory that the grey ware was ancestral to Rouletted ware. Thin-section analysis of Rouletted ware from Anuradhapura and Arikamedu has suggested a geological source in either South India or central Sri Lanka (ibid.).

6.2.1 Grey ware

Grey ware is a medium-fine ware represented by a variety of shapes, including dishes and bowls. It was fired in reducing conditions as demonstrated by its grey colour and the sherds are generally unslipped. It is thought to be ancestral to Rouletted ware due to resembling dish shapes and paste (Deraniyagala 1992: 712; Coningham and Allchin 1992: 163). Some sherds are paddle impressed, but the majority is not decorated. Three body sherds, special finds 15960 (G2), 10392 (I4) and 17371 (I3), and one rim sherd, sf 40003 (I2), have been analysed petrographically (Ford 2000). The first two body sherds and the rim are fine-grained and clearly show this microscopically with fairly well sorted grains. They contain high amounts of mica, which are aligned illustrating that they were wheel-thrown. The grains are angular to sub-angular, which suggest a crushed rock source as opposed to a purely clay one. Indeed, this has also been noted in ceramics from Sigiriya with the theory that the raw material came from a colluvial (i.e. a scree slope) clayey sand deposit (Dahanayake 1984: 174-5). The other body sherd (sf 17371) is medium-grained and is coarser in thin-section than the others. It also contains more quartz grains, which are sub-angular to sub-rounded and may indicate the use of different clay paste preparation techniques. This evidence demonstrates that similar techniques and clay were used over time to produce fine grey ware, whereas at the same time coarser wares may have been produced utilizing alternative methods. Thin-section analysis has also indicated that it was probably not an imported ceramic category as the minerals matched the local geology (Ford 2000). Fine grey ware has also been found at Kantarodai, northern Sri Lanka, in levels preceding Rouletted ware with dates from c. 480 to 130 BC and it continues alongside Rouletted ware, as at

Anuradhapura (Coningham and Allchin 1995: 171). Grey ware also occurs at Arikamedu in pre-Arretine and Arretine levels, in dish forms as represented by forms 2B6 (Wheeler 1946: 53-5). In trench ASW2 the earliest appearance of grey ware is in period J1, phase XII, which has been radiocarbon-dated from c. 510 to 340 cal. BC. The radiocarbon dates for Anuradhapura are not only absolute, they also provide evidence that the presence of grey ware extends further back than the relative dates suggest. There are a total of 207 body sherds of grey ware with the highest concentration (99) in period G2, which dates from c. 200 BC to AD 130. The latest occurrence of grey ware is of one rim sherd in period A1, which dates from AD 600 to 1100. There are 14 rim sherds and 2 base sherds. The rim sherds are concentrated in period I4 and the base sherds are from I2 and I4, which all date from c. 360 to 190 cal. BC. Seven sherds with external decoration have been identified. They appear in periods F to I4 and peak in period G. The fine-grained sherds dominate with 157, whereas the medium-grained ones include 50 sherds. The greatest number occurs in G2 with 71 fine ones and 28 medium-grained sherds. Interestingly, the medium sherds do not dominate the early periods, with 38 fine sherds in period I compared with 9 medium-grained sherds. In period J, both are represented by one sherd each. The rim and base sherds are all fine, apart from one rim sherd from period G2, which is medium. This evidence suggests that grey ware was predominantly a fine ware and the medium wares were for occasional use or produced for different people or purposes. In terms of rim shapes, both dishes and bowls have been identified. The earliest shape is a dish and this dominates in periods I and G. These can be observed as forms 30/A/A/2 and 31/A/A/1, which resemble Rouletted ware rim shapes. This supports the theory that grey ware is an ancestral form to Rouletted ware (Deraniyagala 1992: 712). The average diameter size is 20 cm for the dishes, whereas the bowls are smaller at 14 cm. There does not appear to be any difference temporally in diameter size. Two bowls from periods A1 and I4 are also present and may represent drinking vessels, while the dishes served as eating vessels. There are seven sherds with paddle-impressed surface decoration ranging from period I4 to F (c. 360 cal. BC - AD 540 cal.). The majority is represented in periods G2 and G5 with two sherds each. Although this sub-group contains only a small number of sherds, the highest concentration is consistent with the other grey ware sherds. It is also one of the earliest forms of decoration and is a technique that continues today (Begley 1996: 217-24).

Rim sherds:

Special find no: 40005
Context: 4NE
Weight: 16g
Diameter: 20 cm
Description: Form 36/A/A/1. Fine.

Period: A1
Phase: CXIV

Special find no: 15630
Context: 601
Weight: 13.8g
Diameter: 19 cm
Description: Rim and base, fine
[Plate 1.2]

Period: G2
Phase: LXXII

Special find no: 15630
Context: 601
Weight: 15.4g
Diameter: 18 cm
Description: Medium-grained rim sherd.

Period: G2
Phase: LXXII

Special find no: 10545
Context: 977NW
Weight: 13.8g
Diameter: 21 cm
Description: Fine-grained rim sherd.

Period: I4
Phase: XXVIII

Unglazed Ceramics

Special find no: 40002
Context: 961SE
Weight: 6.5g
Diameter: 21 cm
Description: Rim.
[Fig. 6.1]

Period: 14
Phase: XXX

Special find no: 40004
Context: 977
Weight: 8g
Diameter: 19 cm
Description: Rim.
[Fig. 6.1]

Period: 14
Phase: XXVIII

Special find no: 10392
Context: 970SW
Weight: 22.6g
Diameter: 23 cm
Description: 2 fine-grained rim sherds.

Period: 14
Phase: XXXI

Special find no: 17379
Context: 977NW
Weight: 10.8g
Diameter: 20 cm
Description: Fine-grained rim sherd.

Period: 14
Phase: XXVIII

Special find no: 40001
Context: 977
Weight: 6g
Diameter: 20 cm
Description: Rim.
[Fig. 6.1]

Period: 14
Phase: XXVIII

Special find no: 10548
Context: 977NW
Weight: 415g
Diameter: 14 cm
Description: Bowl with incisions of a ship.
[Fig. 6.1]

Period: 14
Phase: XXVIII

Special find no: 17383
Context: 977NE
Weight: 14g
Diameter: 22 cm
Description: 2 fine-grained rim sherds.

Period: 14
Phase: XXVIII

Special find no: 17388
Context: 977SE
Weight: 12.4g
Diameter: 19 cm
Description: Fine-grained rim sherd.

Period: 14
Phase: XXVIII

Special find no: 40003
Context: 1113
Weight: 9g
Diameter: 20 cm
Description: Form 31/A/A/1.

Period: 12
Phase: XXVII

Special find no: 17384
Context: 1153SW
Weight: 2.6g
Diameter: 21 cm
Description: Fine-grained rim sherd.

Period: 11
Phase: XXIV

Base sherds:

Special find no: 17386
Context: 1101SE
Weight: 14.5g
Description: Fine-grained base sherd.

Period: 12
Phase: XXVI

Special find no: 17375
Context: 977NE
Weight: 10g
Description: Fine-grained possible base sherd.

Period: 14
Phase: XXVIII

Sherds with paddle impression:

Special find no: 2667
Context: 73SE
Weight: 19g
Description: Fine body sherd.
[Plate 1.2]

Period: F
Phase: XCIII

Special find no: 6269
Context: 385SE
Weight: 21g
Description: 2 fine body sherds.

Period: G5
Phase: XCI

Special find no: 8804
Context: 399NE/SE
Weight: 5g
Description: Fine body sherd.

Period: G5
Phase: XCI

Special find no: 6930
Context: 487NE
Weight: 3g
Description: Fine body sherd.

Period: G3
Phase: LXXXI

Special find no: 15301
Context: 601SE/SW
Weight: 6g
Description: Fine body sherd.

Period: G2
Phase: LXXII

Special find no: 10141
Context: 615NW
Weight: 15g
Description: Fine body sherd.

Period: G2
Phase: LXVIII

Special find no: 10532
Context: 977NW
Weight: 17g
Description: 3 fine body sherds.

Period: 14
Phase: XXVIII

Body sherds:

Special find no: 2249
Context: 301NE
Weight: 8g
Description: Fine with paddle?
[Plate 1.2]

Period: D
Phase: XCV

Special find no: 8816
Context: 379SW
Weight: 11.8g
Description: Fine sherd.

Period: F
Phase: XCIII

Special find no: 8813
Context: 417NW
Weight: 11.5g
Description: Fine body sherd.

Period: G5
Phase: XCI

Special find no: 15382
Context: 615NW
Weight: 15.8g
Description: Fine grey sherd.

Period: G2
Phase: LXVIII

Anuradhapura: The Artefacts

Special find no: 15956 Context: 693NW Weight: 14.8g Description: 5 fine-grained body sherds.	Period: G4 Phase: LXXXIV	Special find no: 15952 Context: 630 Weight: 64.5g Description: 12 fine-grained body sherds.	Period: G3 Phase: LXXVI
Special find no: 25191 Context: 511NE Weight: 5g Description: Fine-grained body sherd.	Period: G3 Phase: LXXVI	Special find no: 15947 Context: 494SE Weight: 1g Description: Fine-grained body sherd.	Period: G3 Phase: LXXV
Special find no: 15946 Context: 630 Weight: 66g Description: 7 medium-grained body sherds.	Period: G3 Phase: LXXVI	Special find no: 15948 Context: 613 Weight: 12g Description: Medium-grained body sherd.	Period: G3 Phase: LXXIX
Special find no: 15382 Context: 615NW Weight: 21g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII	Special find no: 15629 Context: 615 Weight: 63g Description: 6 fine-grained body sherds.	Period: G2 Phase: LXVIII
Special find no: 10057 Context: 615NE Weight: 40.2g Description: 5 medium-grained body sherds of grey ware.	Period: G2 Phase: LXVIII	Special find no: 10093 Context: 601SW Weight: 3.2g Description: Fine-grained body sherd.	Period: G2 Phase: LXXII
Special find no: 10141 Context: 615NW Weight: 15.3g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII	Special find no: 10156 Context: 635NW Weight: 68.5g Description: 13 fine-grained body sherds.	Period: G2 Phase: LXXIII
Special find no: 10158 Context: 635NW Weight: 13g Description: Medium-grained body sherd.	Period: G2 Phase: LXXIII	Special find no: 15342 Context: 615NE Weight: 6g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII
Special find no: 15296 Context: 601 Weight: 7.4g Description: Medium-grained body sherd.	Period: G2 Phase: LXXII	Special find no: 15384 Context: 615NW Weight: 8.1g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII
Special find no: 15297 Context: 601 Weight: 5.2g Description: Medium-grained body sherd.	Period: G2 Phase: LXXII	Special find no: 15301 Context: 601SE/SW Weight: 6.2g Description: Fine-grained body sherd.	Period: G2 Phase: LXXII
Special find no: 15341 Context: 615NE Weight: 13g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII	Special find no: 15634 Context: 615NE Weight: 54g Description: 7 medium-grained body sherds.	Period: G2 Phase: LXVIII
Special find no: 15343 Context: 615NE Weight: 4.7g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII	Special find no: 15954 Context: 615NW Weight: 12.8g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII
Special find no: 15383 Context: 615NW Weight: 26.6g Description: Fine-grained body sherd.	Period: G2 Phase: LXVIII	Special find no: 15965 Context: 615 Weight: 63.5g Description: 10 fine-grained body sherds.	Period: G2 Phase: LXVIII
Special find no: 15385 Context: 602NE Weight: 6.5g Description: Fine-grained body sherd.	Period: G2 Phase: LXXII	Special find no: 15386 Context: 602NE Weight: 2.3g Description: Fine-grained body sherd.	Period: G2 Phase: LXXII
Special find no: 15524 Context: 605NE Weight: 18.4g Description: Fine-grained body sherd.	Period: G2 Phase: LXXXIII	Special find no: 15525 Context: 605NE Weight: 32g Description: 2 body sherds of medium grain.	Period: G2 Phase: LXXXIII
Special find no: 15526 Context: 605NE Weight: 9.3g Description: Fine-grained body sherd.	Period: G2 Phase: LXXXIII	Special find no: 15527 Context: 605NE Weight: 3.4g Description: Fine-grained body sherd.	Period: G2 Phase: LXXXIII
Special find no: 15631 Context: 601	Period: G2 Phase: LXXII	Special find no: 15632 Context: 605NE	Period: G2 Phase: LXXXIII

Unglazed Ceramics

Weight: 10g
Description: Medium-grained body sherd.

Special find no: 15929
Context: 643NW
Weight: 6.2g
Description: 2 medium-grained body sherds.

Special find no: 15943
Context: 629SE
Weight: 27g
Description: 2 fine-grained body sherds.

Special find no: 15960
Context: 601NW/SW/SE
Weight: 10.5g
Description: Fine-grained body sherd.

Special find no: 15962
Context: 615
Weight: 29.3g
Description: 4 fine-grained body sherds.

Special find no: 15944
Context: 635NW
Weight: 6.6g
Description: Medium-grained body sherd.

Special find no: 15955
Context: 635
Weight: 10.5g
Description: Fine-grained body sherd.

Special find no: 15953
Context: 635NW
Weight: 1.7g
Description: Fine-grained body sherd.

Special find no: 15958
Context: 605
Weight: 8.6g
Description: Fine-grained body sherd.

Special find no: 15964
Context: 698NE
Weight: 4.5g
Description: Fine-grained body sherd.

Special find no: 16304
Context: 698NE
Weight: 14.8g
Description: Medium-grained body sherd.

Special find no: 15930
Context: 670
Weight: 2.1g
Description: Fine-grained body sherd.

Special find no: 15959
Context: 670NW/SW
Weight: 33.3g
Description: 2 fine-grained body sherds.

Special find no: 16307
Context: 721NW
Weight: 5.4g
Description: Medium-grained body sherd.

Special find no: 16298
Context: 729SW
Weight: 20.3g
Description: Medium-grained body sherd.

Special find no: 16308
Context: 788NE/SE
Weight: 9.7g
Description: Fine-grained body sherd.

Weight: 47g
Description: 4 medium-grained body sherds.

Special find no: 15949
Context: 601SE/SW
Weight: 12g
Description: Medium-grained body sherd.

Special find no: 16300
Context: 601NW
Weight: 4.4g
Description: 2 medium-grained body sherds.

Special find no: 15961
Context: 601NW/SE/SW
Weight: 6g
Description: 2 fine-grained body sherds.

Special find no: 15963
Context: 635NW
Weight: 5g
Description: Fine-grained body sherd.

Special find no: 15945
Context: 634NE
Weight: 4.6g
Description: Fine-grained body sherd.

Special find no: 15951
Context: 615NE
Weight: 37g
Description: 7 fine-grained body sherds.

Special find no: 15957
Context: 605
Weight: 9g
Description: 2 fine-grained body sherds.

Special find no: 16303
Context: 698NE
Weight: 3.2g
Description: Medium-grained body sherd.

Special find no: 16387
Context: 698NE
Weight: 4.2g
Description: Medium-grained body sherd.

Special find no: 16305
Context: 698NE
Weight: 9.7g
Description: Fine-grained body sherd.

Special find no: 15950
Context: 670
Weight: 28.2g
Description: Fine-grained body sherd.

Special find no: 16299
Context: 692NE
Weight: 4.8g
Description: Medium-grained body sherd.

Special find no: 16348
Context: 703
Weight: 50.3g
Description: 5 fine-grained body sherds.

Special find no: 16309
Context: 788NE/SE
Weight: 0.3g
Description: Fine-grained body sherd.

Special find no: 16301
Context: 729
Weight: 3.4g
Description: Fine-grained body sherd.

Amuradhapura: The Artefacts

Special find no: 16302 Context: 767SE Weight: 32.5g Description: Fine-grained body sherd.	Period: I7 Phase: LX	Special find no: 16584 Context: 837NE Weight: 11.7g Description: 3 fine-grained body sherds.	Period: I7 Phase: XXXV
Special find no: 16391 Context: 787SE Weight: 19g Description: Fine-grained body sherd.	Period: I7 Phase: XLIII	Special find no: 16583 Context: 880SE Weight: 9g Description: Fine-grained body sherd.	Period: I6 Phase: XXXIII
Special find no: 17374 Context: 1106NE Weight: 5g Description: Fine-grained body sherd.	Period: I6 Phase: XXXVI	Special find no: 10530 Context: 977NW Weight: 5.4g Description: Fine-grained body sherd.	Period: I4 Phase: XXVIII
Special find no: 17374 Context: 1106NE Weight: 5g Description: Fine-grained.	Period: I6 Phase: XXXVI	Special find no: 10540 Context: 977NW Weight: 27.2g Description: 6 sherds of fine ware, 3 are rim sherds.	Period: I4 Phase: XXVIII
Special find no: 16714 Context: 909SW/SE Weight: 7.3g Description: 3 medium-grained body sherds.	Period: I4 Phase: XXXI	Special find no: 16715 Context: 962NW Weight: 38.3g Description: 2 fine-grained body sherds.	Period: I4 Phase: XXX
Special find no: 16999 Context: 977NE Weight: 15.9g Description: Medium-grained body sherd.	Period: I4 Phase: XXVIII	Special find no: 17000 Context: 977NE Weight: 5.7g Description: Medium-grained body sherd.	Period: I4 Phase: XXVIII
Special find no: 17376 Context: 977NE Weight: 2.2g Description: Fine-grained body sherd.	Period: I4 Phase: XXVIII	Special find no: 17387 Context: 977SE Weight: 20g Description: Fine-grained body sherd.	Period: I4 Phase: XXVIII
Special find no: 17378 Context: 977NW Weight: 1.4g Description: Fine-grained body sherds.	Period: I4 Phase: XXVIII	Special find no: 17389 Context: 977SE Weight: 10g Description: 2 fine-grained body sherds.	Period: I4 Phase: XXVIII
Special find no: 17380 Context: 977NW Weight: 11.4g Description: Medium-grained body sherd.	Period: I4 Phase: XXVIII	Special find no: 10533 Context: 977NW Weight: 1.3g Description: Fine-grained body sherd.	Period: I4 Phase: XXVIII
Special find no: 17382 Context: 977NE Weight: 42g Description: 3 fine-grained body sherds.	Period: I4 Phase: XXVIII	Special find no: 17001 Context: 961SW Weight: 18g Description: Fine-grained body sherd.	Period: I4 Phase: XXX
Special find no: 17371 Context: 1119SW Weight: 22.6g Description: Medium-grained body sherd.	Period: I3 Phase: XXIX	Special find no: 17372 Context: 1119SW Weight: 3.6g Description: Fine-grained body sherd.	Period: I3 Phase: XXIX
Special find no: 17377 Context: 1119SW Weight: 5.6g Description: Fine-grained body sherd.	Period: I3 Phase: XXIX	Special find no: 17381 Context: 1101SW Weight: 3.7g Description: Medium-grained body sherd.	Period: I2 Phase: XXVI
Special find no: 17373 Context: 1101NW Weight: 11.2g Description: 3 fine-grained body sherds.	Period: I2 Phase: XXVI	Special find no: 17390 Context: 1101NE Weight: 4.2g Description: Fine-grained body sherd.	Period: I2 Phase: XXVI
Special find no: 17596 Context: 1116 Weight: 5g Description: Fine-grained body sherd.	Period: I2 Phase: XXVII	Special find no: 17385 Context: 1153 SW Weight: 4.2g Description: Fine-grained body sherd.	Period: I1 Phase: XXIV
Special find no: 17606 Context: 1496SW Weight: 8g Description: Fine-grained body sherd.	Period: J1 Phase: XII	Special find no: 17549 Context: 1407SW Weight: 8.2g Description: Medium-grained body sherd.	Period: J2 Phase: XIV

6.2.2 Rouletted ware (*Arikamedu Type 1*)

Rouletted ware is defined (Wheeler 1946: 46) as:

... a dish, sometimes more than 12 inches (30 cm) in diameter, with an incurved and beaked rim which usually has a faceted edge. The ware has a remarkable smooth surface, is thin, brittle and well burnt, and has a metallic ring. The flat interior is normally decorated with two, occasionally three, concentric bands of rouletted pattern.

It has been found at many sites in South Asia, particularly along the east coast of India, including Arikamedu (Wheeler 1946), Alagankulam (Begley and De Puma 1991: 177), Uraiyur (ibid.: 176), Sisupalgarh (Ghosh 1989: 413) and Chandraketugarh (Walker and Santoso 1977: 42) in India, as well as Anuradhapura (Coningham 1991: 167-74), Kantarodai (Begley 1967: 25) and Mantai (Silva and Bouzek 1985: 46) in Sri Lanka. A number of sites in Southeast Asia, such as Sembiran (Bali, Indonesia) (Ardika and Bellwood 1991: 223), Buni (Java, Indonesia) (ibid.) and Tra Krieu (Vietnam) (Glover and Yamagata 1995: 166) have also yielded this ware with the implication of trade relations within Asia. A total of 1,191 sherds of Rouletted ware have been found in trench ASW2 at Anuradhapura ranging from period A2 to period I4 with the highest concentration (174) in period D, phase XCV. However, this context has been interpreted as the fill of a robber pit and therefore may have been redeposited. It is wise instead to note the highest concentration of Rouletted ware sherds in period G5, phase XCI, which contains 171 sherds. This period is thought to be the remains of a collapse of a structure and has been radiocarbon-dated from 200 cal. BC

to AD 130 cal. (Coningham and Batt 1999: 128-9). The catalogue has been divided into 'baby' Rouletted ware and Rouletted ware, based on the size of the sherds and their estimated diameter. The normal size has a diameter of over 15 cm, while the 'baby' Rouletted ware has a diameter less than 15 cm and a maximum height of 4 cm. It is difficult to determine whether a sherd is a 'baby' or normal, although rim sherds are more diagnostic. The fineness of the body and the high-quality finish on the sherds allow for such identification. Smaller dishes may have been utilized for individual eating, while the larger ones were for communal use. Smaller dishes are apparent at Arikamedu, but none are as small as the 'baby' variety recognized at Anuradhapura. Both the 'baby' Rouletted ware diameters and the Rouletted ware diameters do not appear to have any particular size at any period. The individual rim types have not displayed any significant diameter change over time either. There are several different rim shapes, which are described below. All the varieties are found in all periods with no specific type during a certain period. This is the same as the 'baby' Rouletted ware rims. However, overall there are more beaked rims with internal lips than any other variety, which may suggest they were the most popular variant or that they were produced in a particular workshop. Overall, 'baby' Rouletted ware is present in periods B4 to I3, whereas Rouletted ware has been yielded by periods A2 to I4. This may indicate that 'baby' Rouletted ware was produced first, although this is not supported by Wheeler's excavations at Arikamedu (1946: 49). Rouletted ware discs have also been discovered, which are Rouletted ware that has been ground into discs. They are found in periods I4 to B4 and peak in period G5.

6.2.2.1 'Baby' Rouletted ware

Rims:

To be classed as 'baby' Rouletted ware, rims must have a diameter of less than 15 cm and clearly be of the 'baby' type. The total height for the vessel should be less than 3.5 cm deep. Cross-sections are given as the narrowest available measurement and may in some cases be deceptive owing to the thickness of the rim edge itself, which may be the narrowest available to be measured. On average, these measurements should not be more than 0.40 cm thick. In

terms of rim shapes, a plain round-edged rim (similar to Wheeler's 1f and 1g) is present in all levels with greater varieties throughout period G. Other shapes include beaked rims, some rounded and some straight, and those with an internal lip dominate. A total of 19 rim sherds range from period D to I3. Periods G3 and G5 contain the most sherds with six sherds each. The diameters do not significantly change over time with a range of 12 to 14 cm.

Special find no: 1678
Context: 285NE
Diameter: 14 cm
Weight: 3.6 g
Rim type: plain round edged rim, very little inward curve.

Period: D
Phase: XCV
x-section: 0.27 cm

Special find no: 2735
Context: 365NW
Diameter: 14 cm
Weight: 2.2 g
Rim type: rounded incurved rim similar to an example illustrated by Begley (1994: 318, fig. 26.2).
[Fig. 6.2]

Period: F
Phase: XCII
x-section: 0.25cm

Special find no: 5414
Context: 415
Diameter: 12 cm
Weight: 0.6 g
Rim type: rounded incurved beaked rim similar to Wheeler's type 1h.

Period: G5
Phase: XCI
x-section: 0.28 cm

Special find no: 6442
Context: 409NW
Diameter: 14 cm
Weight: 1.8 g
Rim type: incurved beaked rim similar to Wheeler's type 1c. Two grooves around external surface, 0.6cm from rim.

Period: G5
Phase: LXXXVIII
x-section: 0.27 cm

Special find no: 6792
Context: 449SW
Diameter: 12cm

Period: G5
Phase: LXXXVII
x-section: 0.26cm

Special find no: 6817
Context: 339SE
Diameter: 13 cm

Period: G5
Phase: LXXXVII
xsection: 0.38cm

Weight: 1.5 g
Rim type: rounded incurving rim with no beak similar to an example illustrated by Begley (1994: 318, fig 26.2).

Special find no: 8147
Context: 464SE
Diameter: 12 cm
Weight: 1.6 g
Rim type: rounded incurved beaked rim similar to Wheeler's type 1h.

Period: G5
Phase: LXXXVII
x-section: 0.39 cm

Special find no: 15394
Context: 605NE
Diameter: 13 cm
Weight: 10.2 g
Rim type: Wheeler's type 1b with external grooves.
[Plate 1.2]

Period: G4
Phase: LXXXIII
x-section: 0.33 cm

Special find no: 7168
Context: 494NE
Diameter: 16cm
Weight: 6.4g
Rim type: rounded incurving rim with no beak similar to an example illustrated by Begley (1994: 318, fig 26.2)

Period: G3
Phase: LXXV
x-section: 0.36cm

Special find no: 16713
Context: 961
Diameter: 10 cm
Weight: 1 g
Rim type: similar to Wheeler's type 1b but more rounded on the external edge.

Period: G3
Phase: LXXVI
x-section: 0.35 cm

Special find no: 8486
Context: 506SW
Diameter: ? cm
Weight: 0.5 g
Rim type: plain rounded incurved beak similar to an example illustrated by Begley (1994: 318, fig 26.2).

Period: G3
Phase: LXXVI
x-section: 0.35 cm

Special find no: 10172
Context: 615NW
Diameter: 14 cm
Weight: 5 g
Rim type: plain round edged inward curving rim. Very fine Rouletted ware vessel.

Period: G2
Phase: LXVIII
x-section: 0.25 cm

Special find no: 10539
Context: 977NW
Diameter: 12.5 cm
Weight: 5g
Rim type: rounded incurving rim with no beak similar to an example illustrated by Begley (1994: 318, fig 26.2).

Period: I3
Phase: XXVIII
x-section: 0.37 cm

Weight: 3 g
Rim type: similar to Wheeler's type 1c but with a more rounded rim
[Fig. 6.2]

Special find no: 8237
Context: 442SE
Diameter: ? cm
Weight: 2 g
Rim type: incurved round edged beaked rim, similar to Wheeler's type 1h.

Period: G5
Phase: LXXXVII
x-section: 0.3cm

Special find no: 15818
Context: 693
Diameter: 12 cm
Weight: 2 g
Rim type: plain round edged inward curving rim. Very fine Rouletted ware vessel.

Period: G4
Phase: LXXXIV
x-section: 0.25cm

Special find no: 7208
Context: 493SE
Diameter: 13 cm
Weight: 0.8 g
Rim type: rounded rim with no beak similar to an example illustrated by Begley (1994: 318, fig 26.2).

Period: G3
Phase: LXXV
x-section: 0.42cm

Special find no: 17231
Context: 506SW
Diameter: 14 cm
Weight: 8.8 g
Rim type: plain round edged inward curving rim. Very fine Rouletted ware vessel.

Period: G3
Phase: LXXVI
x-section: 0.37cm

Special find no: 25183
Context: 506SW
Diameter: 12 cm
Weight: 3 g
Rim type: Wheeler's type 1c with external bands.

Period: G3
Phase: LXXVI
x-section: 0.38cm

Special find no: 15878
Context: 601SW
Diameter: 13 cm
Weight: 2 g
Rim type: rounded incurved rim similar to an example illustrated by Begley (1994: 318, fig 26.2).

Period: G2
Phase: LXXII
x-section: 0.32cm

Body sherds:

There are 63 body sherds ranging from period B4 to I6, and these peak with 17 sherds in period G2, which dates from c. 200 cal. BC to AD 130 cal.

Special find no: 40050
Context: 9NW
Weight: 1g
Description: Orange/brown sherd.

Period: B4
Phase: CVI

Special find no: 40067
Context: 24NE
Weight: 4g
Description: Black and brown sherd.

Period: B2
Phase: C

Special find no: 40029
Context: 113NE
Weight: 1.2g
Description: Black-slipped sherd.

Period: D
Phase: XCV

Special find no: 1948
Context: 334NW
Weight: 1.7g
Description: Glossy black and orange slipped body sherd.

Period: D
Phase: XCV

Special find no: 15203
Context: 600
Weight: 1g
Description: Black-slipped sherd.

Period: D
Phase: XCV

Special find no: 15203
Context: 600SE
Weight: 1.7g
Description: Dark grey-slipped sherd.

Period: D
Phase: XCV

Unglazed Ceramics

Special find no: 8586 Context: 356NE Weight: 2.5g Description: Black and orange body sherd.	Period: D Phase: XCV	Special find no: 8591 Context: 151SE Weight: 0.6g Description: Black and orange body sherd.	Period: D Phase: XCV
Special find no: 2130 Context: 307SE Weight: 1.4g Description: Orange/tan and tan/dark brown sherd.	Period: F Phase: XCIII	Special find no: 6168 Context: 379SW Weight: 0.9g Description: Glossy black and orange body sherd.	Period: F Phase: XCIII
Special find no: 5638 Context: 305SW Weight: 1.6g Description: Black-slipped sherd.	Period: F Phase: XCIII	Special find no: 8596 Context: 367SW Weight: 1.5g Description: Orange-slipped body sherd.	Period: F Phase: XCII
Special find no: 2368 Context: 375NW Weight: 3.4g Description: Black-slipped body sherd.	Period: G5 Phase: LXXXVIII	Special find no: 5392 Context: 426NE Weight: 3.3g Description: Black-slipped sherd.	Period: G5 Phase: LXXXVIII
Special find no: 5479 Context: 412SE Weight: 4g Description: Black-slipped sherd.	Period: G5 Phase: LXXXVII	Special find no: 8593 Context: 449SW Weight: 0.5g Description: Orange/tan and tan/red brown body sherd.	Period: G5 Phase: LXXXVII
Special find no: 6496 Context: 415SE Weight: 0.8g Description: Black and orange body sherd.	Period: G5 Phase: XCI	Special find no: 6780 Context: 445SW Weight: 2.3g Description: Glossy black and brown slipped sherd.	Period: G5 Phase: LXXXVII
Special find no: 5494 Context: 386NW Weight: 1.6g Description: Dark brown/black-slipped sherd.	Period: G5 Phase: XCI	Special find no: 6977 Context: 450 Weight: 3.5g Description: Black and orange body sherd.	Period: G5 Phase: LXXXVII
Special find no: 6338 Context: 390SE Weight: 2.3g Description: Black and orange body sherd.	Period: G5 Phase: LXXXVI	Special find no: 15922 Context: 601SE Weight: 3.6g Description: Black and orange/tan sherd.	Period: G4 Phase: LXXXIV
Special find no: 5735 Context: 487NE Weight: 1.5g Description: 3 black-slipped body sherds.	Period: G4 Phase: LXXXI	Special find no: 6878 Context: 487NE Weight: 2.4g Description: Grey/black-slipped body sherd.	Period: G4 Phase: LXXXI
Special find no: 7005 Context: 487NE Weight: 2.8g Description: 3 black-slipped body sherds.	Period: G4 Phase: LXXXI	Special find no: 7112 Context: 495SW Weight: 1.4g Description: Black-slipped body sherd.	Period: G4 Phase: LXXX
Special find no: 8027 Context: 487NE Weight: 1g Description: Black/grey-slipped body sherd.	Period: G4 Phase: LXXXI	Special find no: 15915 Context: 605 Weight: 1g Description: Black/grey-slipped sherd.	Period: G4 Phase: LXXXIII
Special find no: 7165 Context: 492SE Weight: 1.8g Description: 3 black-slipped body sherds.	Period: G3 Phase: LXXV	Special find no: 8034 Context: 492SE Weight: 3.3g Description: Black-slipped body sherd.	Period: G3 Phase: LXXV
Special find no: 8195 Context: 492SE Weight: 1.5g Description: Grey/black-slipped body sherd.	Period: G3 Phase: LXXV	Special find no: 16712 Context: 503NW Weight: 0.8g Description: Black/grey-slipped sherd.	Period: G3 Phase: LXXVI
Special find no: 8267 Context: 502NE Weight: 0.3g Description: Black-slipped body sherd.	Period: G3 Phase: LXXVI	Special find no: 8273 Context: 505 Weight: 0.3g Description: Black-slipped body sherd.	Period: G3 Phase: LXXVI
Special find no: 10000 Context: 601 Weight: 1g Description: Black-slipped sherd.	Period: G2 Phase: LXXII	Special find no: 10053 Context: 606SE Weight: 1.8g Description: Black-slipped sherd.	Period: G2 Phase: LXX
Special find no: 15380 Context: 602NE	Period: G2 Phase: LXXII	Special find no: 15519 Context: 603	Period: G2 Phase: LXVIII

Weight: 1.3g
Description: Glossy black sherd.

Special find no: 15220
Context: 601
Weight: 6g
Description: Black-slipped sherd.

Special find no: 15880
Context: 601SW
Weight: 1.2g
Description: Grey-slipped sherd.

Special find no: 15893
Context: 601SE
Weight: 1g
Description: Glossy black-slipped sherd.

Special find no: 15904
Context: 615NW
Weight: 2.5g
Description: Grey-slipped sherd.

Special find no: 15916
Context: 615
Weight: 6g
Description: Grey/black-slipped sherd.

Special find no: 15300
Context: 601SE
Weight: 1.1g
Description: Black/grey and red/orange sherd.

Special find no: 10091
Context: 601SE
Weight: 2.9g
Description: Orange sherd.

Special find no: 15834
Context: 670NW
Weight: 0.8g
Description: Black-slipped sherd.

Special find no: 15912
Context: 697
Weight: 1.9g
Description: Deep black-slipped sherd.

Special find no: 16237
Context: 768NE
Weight: 0.8g
Description: Black/brown slipped sherd.

Weight: 1.3g
Description: Grey/brown slipped sherd.

Special find no: 15513
Context: 615
Weight: 1g
Description: Purple black and orange/brown sherd.

Special find no: 15886
Context: 615NW
Weight: 3.3g
Description: Dark grey-slipped sherd.

Special find no: 15893
Context: 601SE
Weight: 11.3g
Description: Glossy black-slipped sherd.

Special find no: 15925
Context: 615
Weight: 2.7g
Description: Cream/tan and grey/dark brown sherd.

Special find no: 15522
Context: 615
Weight: 1.8g
Description: Orange/brown and cream/brown sherd.

Special find no: 15914
Context: 635NW
Weight: 2.3g
Description: Black-slipped sherd.

Special find no: 15832
Context: 671
Weight: 1.5g
Description: Grey and orange brown sherd.

Special find no: 16057
Context: 744NW
Weight: 1.2g
Description: Black-slipped sherd.

Special find no: 16295
Context: 729NW
Weight: 1.5g
Description: Grey/blue slipped sherd.

Special find no: 15991
Context: 752SW
Weight: 2g
Description: Glossy black and black/brown sherd.

6.2.2.2 Rouletted ware

Rouletted ware rims:

A total of 264 rim sherds of Rouletted ware have been recorded, with a total weight of 2,623.7 g. The rims have been found from period I4, dating to circa 300 BC, until period A, covering over a thousand years of occupational debris. Periods I to F represent the period of Rouletted ware

use (i.e. circa 200 BC to AD 200) with later dated sherds being the result of mixing due to human activities. Various rim types have been identified in the collection of Rouletted ware sherds from ASW2, which have been classified into the following shapes:

Plain round-edged rims

These include simple rims with rounded edges and are present from period B1 to I6, a time span from 340 cal. BC to AD 1100.

Special find no: 40041
Context: 59SW
Diameter: 24 cm
Weight: 11 g

Period: B1
Phase: XCVI
x-section: 0.31 cm

Special find no: 8540
Context: 80

Period: D
Phase: XCV

Special find no: 5609
Context: 368NW
Diameter: 22 cm
Weight: 8 g
[Fig. 6.2]

Period: D
Phase: XCV
x-section: 0.55 cm

Special find no: 8546
Context: 173SW

Period: D
Phase: XCV

Unglazed Ceramics

Diameter: 18 cm Weight: 4.5 g	x-section: 0.55 cm	Diameter: 14 cm Weight: 3 g	x-section: 0.53 cm
Special find no: 2904 Context: 367SW Diameter: 23.6 cm Weight: 3.2 g	Period: F Phase: XCII x-section: 0.58 cm	Special find no: 5225 Context: 73SE Diameter: 12.6 cm Weight: 7.6 g [Fig. 6.2]	Period: F Phase: XCII x-section: 0.67 cm
Special find no: 5639 Context: 305SW Diameter: unattainable Weight: 29 g	Period: F Phase: XCIII x-section: 0.5 cm	Special find no: 5624 Context: 406SW Diameter: unattainable Weight: 10 g [Fig. 6.2]	Period: G5 Phase: XCI x-section: 0.44 cm Microstructural analysis
Special find no: 8169 Context: 424NW Diameter: 18 cm Weight: 5.7 g	Period: G5 Phase: XCI x-section: cm	Special find no: 40021 Context: 615 Diameter: 24 cm Weight: 14 g	Period: G2 Phase: LXVIII x-section: 0.54 cm
Special find no: 40040 Context: 615 Diameter: 26 cm Weight: 14 g	Period: G2 Phase: LXVIII x-section: 0.40 cm	Special find no: 15778 Context: 663NW Diameter: 24 cm Weight: 5.7 g	Period: G1 Phase: LXVI x-section: 0.44 cm
Special find no: 15923 Context: 670 Diameter: 30 cm Weight: 7.7 g	Period: H Phase: LXIV x-section: 0.61 cm	Special find no: 16587 Context: 831SE Diameter: 24 cm Weight: 4.8 g	Period: I6 Phase: XXXIX x-section: 0.44 cm

Undercut rims

These rims appear to have a lip jutting internally with the clay cut away underneath it. They are represented by 35 sherds stretching from B5 to I4, with the majority in

periods G4 and G5 containing 8 sherds each. This peak dates from 200 cal. BC to AD 130 cal.

Special find no: 8556 Context: SSE Diameter: 26 cm Weight: 18 g Rim type: incurved beaked rim, similar to type 1(e/f). Rim width: 0.94 cm	Period: B5 Phase: CXII x-section: 0.38 cm	Special find no: 1966 Context: 322NW Diameter: 24 cm Weight: 8.6 g Rim type: incurved square beaked rim, similar to type 1(e). Rim width: 1.02 cm	Period: D Phase: XCV x-section: 0.45 cm
Special find no: 2399 Context: 373NW Diameter: unknown Weight: 2 g Rim type: incurved beaked rim, similar to type 1(e). Rim width: unknown [Fig. 6.2]	Period: D Phase: XCV x-section: 0.53 cm	Special find no: 8026 Context: 373NW Diameter: 22 cm Weight: 15.3 g Rim type: incurved beaked rim, similar to type 1(f). Rim width: 1.04 cm	Period: D Phase: XCV x-section: 0.59 cm
Special find no: 8545 Context: 368NW Diameter: ? Weight: 13 g Rim type: incurved beaked rim, similar to type 1(e). Rim width: 1.04 cm	Period: D Phase: XCV x-section: 0.37 cm	Special find no: 2543 Context: 345SW Diameter: 22 cm Weight: 9.7 g Rim type: incurved beaked rim, similar to type 1(f). Rim width: 0.88 cm	Period: F Phase: XCIII x-section: 0.38 cm
Special find no: 2705 Context: 365NW Diameter: 16 cm Weight: 13.2 g Rim type: incurved beaked rim, similar to type 1(e). Rim width: 0.86 cm	Period: F Phase: XCII x-section: 0.36 cm	Special find no: 2898 Context: 364NE Diameter: 24 cm Weight: 15 g Rim type: incurved beaked rim, similar to type 1(e). Rim width: 1.08 cm	Period: F Phase: XCII x-section: 0.57 cm
Special find no: 40030 Context: 379SW Diameter: 24 cm Weight: 6.3 g Rim type: incurved beaked rim, similar to type 1(e). Rim width: 0.93 cm	Period: F Phase: XCIII x-section: 0.49 cm	Special find no: 40249 Context: 4SE Diameter: 14 cm Weight: 5.5 g Rim type: incurved beaked rim, similar to type 1(f). Rim width: 0.97 cm	Period: F Phase: XCIII x-section: 0.31 cm
Special find no: 40250 Context: 126SE Diameter: 20 cm Weight: 14.2 g	Period: F Phase: XCIII x-section: 0.57 cm	Special find no: 40251 Context: 91NE Diameter: 22 cm Weight: 16.7 g	Period: F Phase: XCIII x-section: 0.36 cm

Anuradhapura: The Artefacts

Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.04 cm

Special find no: 5227 **Period: G5**
Context: 73NW **Phase: XCI**
Diameter: 20 cm **x-section: 0.42 cm**
Weight: 8.5 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 0.83 cm

Special find no: 5619 **Period: G5**
Context: 409NW **Phase: LXXXVIII**
Diameter: 16 cm **x-section: 0.32 cm**
Weight: 9.3 g
Rim type: incurved beaked rim similar to Wheeler's type 1(e).
Rim width: 0.96 cm

Special find no: 6474 **Period: G5**
Context: 415SE **Phase: XCI**
Diameter: 20 cm **x-section: 0.44 cm**
Weight: 9.2 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.03 cm

Special find no: 6709 **Period: G5**
Context: 416NE **Phase: XCI**
Diameter: 18 cm **x-section: 0.4 cm**
Weight: 17.2 g
Rim type: incurved beaked rim, similar to type 1(f).
Rim width: 1.04 cm

Special find no: 6876 **Period: G4**
Context: 470SW **Phase: LXXXI**
Diameter: 22 cm **x-section: 0.49 cm**
Weight: 8.2 g
Rim type: incurved beaked rim, similar to type 1(e/f).
Rim width: 1.02 cm

Special find no: 7076 **Period: G4**
Context: 495SE **Phase: LXXX**
Diameter: 26 cm **x-section: 0.45 cm**
Weight: 7 g
Rim type: incurved square beaked rim, type 1(e).
Rim width: 1.03 cm

Special find no: 8168 **Period: G4**
Context: 469SE **Phase: LXXXI**
Diameter: 26 cm **x-section: 0.58 cm**
Weight: 5.4 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.01 cm

Special find no: 15920 **Period: G4**
Context: 693NW **Phase: LXXXIV**
Diameter: 22 cm **x-section: 0.36 cm**
Weight: 9.4 g
Rim type: incurved square beaked rim, similar to type 1(e).
Rim width: 0.82 cm

Special find no: 7192 **Period: G3**
Context: 489NW **Phase: LXXV**
Diameter: 22 cm **x-section: 0.28 cm**
Weight: 7.3 g
Rim type: incurved beaked rim, similar to type 1(f).
Rim width: 0.89 cm

Special find no: 8197 **Period: G3**
Context: 490SW **Phase: LXXV**
Diameter: 20 cm **x-section: 0.61 cm**
Weight: 2.8 g
Rim type: incurved beaked rim, similar to type 1(f).
Rim width: 1.01 cm

Special find no: 15829 **Period: G2**
Context: 634NE **Phase: LXIX**
Diameter: 28 cm **x-section: 0.5 cm**
Weight: 6.6 g

Rim type: incurved beaked rim, similar to type 1(f).
Rim width: 0.99 cm

Special find no: 5398 **Period: G5**
Context: 386SW **Phase: XCI**
Diameter: 20 cm **x-section: 0.43 cm**
Weight: 5.5 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.01 cm

Special find no: 6410 **Period: G5**
Context: 414SW **Phase: XCI**
Diameter: 20 cm **x-section: 0.28 cm**
Weight: 8.7 g
Rim type: incurved beaked rim similar to Wheeler's type 1(f).
Rim width: 0.98 cm

Special find no: 6536 **Period: G5**
Context: 416NE **Phase: XCI**
Diameter: 18 cm **x-section: 0.44 cm**
Weight: 7.4 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.09 cm

Special find no: 10010 **Period: G5**
Context: 601SW/SE **Phase: XCI**
Diameter: 22 cm **x-section: 0.49 cm**
Weight: 11 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.05 cm

Special find no: 7009 **Period: G4**
Context: 487NE **Phase: LXXXI**
Diameter: 18 cm **x-section: 0.45 cm**
Weight: 10.7 g
Rim type: incurved beaked rim, similar to type 1(c).
Rim width: 1.01 cm

Special find no: 8029 **Period: G4**
Context: 495SE **Phase: LXXX**
Diameter: 20 cm **x-section: 0.51 cm**
Weight: 8.2 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 0.98 cm

Special find no: 8185 **Period: G4**
Context: 469SE **Phase: LXXXI**
Diameter: 22 cm **x-section: 0.43 cm**
Weight: 3.5 g
Rim type: incurved beaked rim, type 1(e).
Rim width: 1.01 cm

Special find no: 40028 **Period: G4**
Context: 605NW **Phase: LXXXIII**
Diameter: 28 cm **x-section: 0.41 cm**
Weight: 36 g
Rim type: incurved beaked rim, similar to type 1(f).
Rim width: 1.13 cm

Special find no: 8028 **Period: G3**
Context: 489NW **Phase: LXXV**
Diameter: 26 cm **x-section: 0.40 cm**
Weight: 7 g
Rim type: incurved beaked rim, similar to type 1(e).
Rim width: 1.01 cm

Special find no: 15271 **Period: G2**
Context: 615NE **Phase: LXVIII**
Diameter: 24 cm **x-section: 0.36 cm**
Weight: 13.3 g
Rim type: incurved pronounced beaked rim, similar to type 1(f).
Joins sf 15811.
Rim width: 0.84 cm

Special find no: 15811 **Period: H1**
Context: 698NW **Phase: LXIV**
Diameter: 18 cm **x-section: 0.35 cm**
Weight: 4.8 g

Unglazed Ceramics

Rim type: incurved beaked rim, similar to type 1 (f).
Rim width: 1.09 cm

Special find no: 17402 **Period: 14**
Context: 940SE **Phase: XXXI**
Diameter: 22 cm **x-section: 0.48 cm**
Weight: 5.2 g
Rim type: incurved square beaked rim, similar to type 1 (f).
Rim width: 0.98 cm

Rim type: incurved beaked rim, similar to type 1 (d).
Joins sf 15271.
Rim width: 0.84 cm

Well formed 'beaked' rims with no sign of internal lip or undercutting

These include rims which have an almost triangular appearance in cross-section and are the most diagnostic form of Rouletted ware rim. Twenty-three sherds have been

identified ranging from period B1 to G2. They peak with seven sherds in period G5, which dates from 190 cal. BC to AD 200 cal.

Special find no: 40035 **Period: B1**
Context: 59SW **Phase: XCVI**
Diameter: 20 cm **x-section: 0.48 cm**
Weight: 14.5 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 0.79 cm

Special find no: 40252 **Period: D**
Context: 88NE **Phase: XCV**
Diameter: 28 cm **x-section: 0.41 cm**
Weight: 18.3 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.28 cm

Special find no: 2324 **Period: F**
Context: 306SW **Phase: XCIII**
Diameter: 33.2 cm **x-section: 0.28 cm**
Weight: 37 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.12 cm
[Fig. 6.2]

Special find no: 8033 **Period: F**
Context: 194NW **Phase: XCIII**
Diameter: 20 cm **x-section: 0.6 cm**
Weight: 7.3 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Sampled for microstructural analysis.
Rim width: 0.89 cm

Special find no: 6410 **Period: G5**
Context: 414SW **Phase: XCI**
Diameter: 20 cm **x-section: 0.39 cm**
Weight: 12 g
Rim type: incurved beaked rim similar to Wheeler's type 1.
Rim width: 0.95 cm

Special find no: 6461 **Period: G5**
Context: 416NE **Phase: XCI**
Diameter: 28 cm **x-section: 0.40 cm**
Weight: 11 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 0.93 cm

Special find no: 6579 **Period: G5**
Context: 424NW **Phase: XCI**
Diameter: 22 cm **x-section: 0.40 cm**
Weight: 8 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.09 cm

Special find no: 6643 **Period: G5**
Context: 409NE **Phase: LXXXVIII**
Diameter: 32 cm **x-section: 0.54 cm**

Special find no: 8547 **Period: B1**
Context: 25NW **Phase: XCVII**
Diameter: 24 cm **x-section: 0.55 cm**
Weight: 16 g
Rim type: incurved beak, similar to Wheeler's type 1
Rim width: 1.34 cm

Special find no: 5302 **Period: D**
Context: 313SW **Phase: XCV**
Diameter: 20 cm **x-section: 0.25 cm**
Weight: 7 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 0.90 cm

Special find no: 5228 **Period: F**
Context: 73SW **Phase: XCII**
Diameter: 20 cm **x-section: 0.56 cm**
Weight: 18.7 g
Rim type: incurved beaked rim similar to Wheeler's type 1.
Rim width: 1.07 cm

Special find no: 8584 **Period: F**
Context: 364NE **Phase: XCII**
Diameter: 22 cm **x-section: 0.52 cm**
Weight: 7.6 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.13 cm

Special find no: 6437 **Period: G5**
Context: 409NW **Phase: LXXXVIII**
Diameter: 28 cm **x-section: 0.35 cm**
Weight: 47.7 g
Rim type: incurved beaked rim similar to Wheeler's type 1.
Rim width: 1.06 cm
[Fig. 6.3]

Special find no: 6533 **Period: G5**
Context: 417NW **Phase: XCI**
Diameter: 28 cm **x-section: 0.32 cm**
Weight: 11 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.06 cm
[Fig. 6.3]

Special find no: 6639 **Period: G5**
Context: 426NE **Phase: LXXXVIII**
Diameter: 27.6 cm **x-section: 0.53 cm**
Weight: 20 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Very coarse fabric with an unusual external slip which is very bright pale to dark orange.
Rim width: 0.84 cm
[Fig. 6.3]

Special find no: 6944 **Period: G4**
Context: 487NE **Phase: LXXXI**
Diameter: 20 cm **x-section: 0.45 cm**

Anuradhapura: The Artefacts

Weight: 10 g
Rim type: incurved beaked rim similar to Wheeler's type 1.
Rim width: 1.06 cm

Special find no: 7059 **Period: G3**
Context: 493SE **Phase: LXXV**
Diameter: 26 cm x-section: 0.47 cm
Weight: 20.5 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.26 cm

Special find no: 25181 **Period: G3**
Context: 504 **Phase: LXXVI**
Diameter: 22 cm x-section: 0.45 cm
Weight: 4.5 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 0.94 cm

Special find no: 15298 **Period: G2**
Context: 602NW **Phase: LXXVII**
Diameter: 24 cm x-section: 0.49 cm
Weight: 8.3 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.16 cm

Special find no: 15512 **Period: G2**
Context: 615 **Phase: LXXVIII**
Diameter: 24 cm x-section: 0.39 cm
Weight: 25 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.06 cm

Beaked rims with lip on internal edge

These are similar to the last group but also contain an internally projecting lip. Again, this form is diagnostic of typical Rouletted ware. This category is represented by 45

Special find no: 40258 **Period: A**
Context: 4SE **Phase: CXIV**
Diameter: 26 cm x-section: 0.66 cm
Weight: 8.4 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.12 cm

Special find no: 40031 **Period: B5**
Context: 5NE **Phase: CXII**
Diameter: 24 cm x-section: 0.54 cm
Weight: 29.2 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.13 cm

Special find no: 40253 **Period: B2**
Context: 25NE **Phase: C**
Diameter: 24 cm x-section: 0.48 cm
Weight: 6 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.05 cm

Special find no: 2252 **Period: D**
Context: 215 **Phase: XCV**
Diameter: 16 cm x-section: 0.46 cm
Weight: 10 g
Rim type: Incurved beaked rim, similar to type 1(a).
Rim width: 1.06 cm

Special find no: 40256 **Period: D**
Context: 107NW **Phase: XCV**
Diameter: 20 cm x-section: 0.48 cm
Weight: 8.3 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.02 cm

Special find no: 8562 **Period: F**
Context: 365NW **Phase: XCII**
Diameter: 22 cm x-section: 0.53 cm
Weight: 5.4 g

Weight: 17 g
Rim type: incurved beaked rim similar to Wheeler's type 1(a).
Rim width: 1.04 cm

Special find no: 10193 **Period: G3**
Context: 503NE **Phase: LXXVI**
Diameter: 30 cm x-section: 0.35 cm
Weight: 88 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: ranges from 0.99 to 1.03 cm

Special find no: 10149 **Period: G2**
Context: 635NW **Phase: LXXIII**
Diameter: 24 cm x-section: 0.4 cm
Weight: 14.5 g
Rim type: incurved beaked rim, similar to Wheeler's type 1.
Rim width: 1.01 cm

Special find no: 15879 **Period: G2**
Context: 601SW **Phase: LXXVII**
Diameter: 24 cm x-section: 0.56 cm
Weight: 2 g
Rim type: incurved beaked rim, similar to Wheeler's type 1(a).
Rim width: 0.96 cm

sherds from period A to I5, i.e. 340 cal. BC to AD 1100. They peak in period G5 with 14 sherds.

Special find no: 40026 **Period: A**
Context: 4NE **Phase: CXIV**
Diameter: 24 cm x-section: 0.44 cm
Weight: 17 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.04 cm

Special find no: 40254 **Period: B5**
Context: 5NW **Phase: CXII**
Diameter: 26 cm x-section: 0.44 cm
Weight: 17.3 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.01 cm

Special find no: 40257 **Period: B1**
Context: 25NW **Phase: XCVII**
Diameter: 16 cm x-section: 0.67 cm
Weight: 5.5 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.16 cm

Special find no: 40255 **Period: D**
Context: 113NE **Phase: XCV**
Diameter: 16 cm x-section: 0.46 cm
Weight: 4 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.81 cm

Special find no: 8585 **Period: F**
Context: 364NE **Phase: XCII**
Diameter: 18 cm x-section: 0.62 cm
Weight: 8.3 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.00 cm

Special find no: 8031 **Period: F**
Context: 345SW **Phase: XCIII**
Diameter: 26 cm x-section: 0.33 cm
Weight: 13.3 g

Unglazed Ceramics

Rim type: unknown; the rim is too damaged to identify its form.
Rim width: unknown; the rim is too damaged to make a measurement of its width.

Special find no: 5301
Context: 264
Diameter: 28 cm
Weight: 21.8 g
Rim type: incurved beaked rim, type 1(d).
Rim width: 1.29 cm

Period: F
Phase: XCIII
x-section: 0.47 cm

Special find no: 40042
Context: 417NW
Diameter: 24 cm
Weight: 12.6 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 1.16 cm

Period: G5
Phase: XCI
x-section: 0.53 cm

Special find no: 5477
Context: 416
Diameter: 14 cm
Weight: 4 g
Rim type: incurved beaked rim, type 1(f).
Rim width: 0.92 cm

Period: G5
Phase: XCI
x-section: 0.37 cm

Special find no: 6287
Context: 385SE
Diameter: 20 cm
Weight: 3.7 g
Rim type: incurved beaked rim similar to Wheeler's type 1(a).
Rim width: 1.10 cm

Period: G5
Phase: XCI
x-section: 0.49 cm

Special find no: 6760
Context: 406SW
Diameter: 24 cm
Weight: 13.3 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.89 cm

Period: G5
Phase: XCI
x-section: 0.51 cm

Special find no: 6745
Context: 445SW
Diameter: 22 cm
Weight: 8.2 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 1.14 cm

Period: G5
Phase: LXXXVII
x-section: 0.31 cm

Special find no: 6841
Context: 339SE
Diameter: 20 cm
Weight: 13.4 g
Rim type: incurved square beaked rim, type 1(c).
Rim width: 1.07 cm

Period: G5
Phase: LXXXVII
x-section: 0.36 cm

Special find no: 40025
Context: 426NE
Diameter: 20 cm
Weight: 4.7 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.93 cm

Period: G5
Phase: LXXXVIII
x-section: 0.48 cm

Special find no: 6420
Context: 409NW
Diameter: 20 cm
Weight: 12 g
Rim type: incurved beaked rim similar to Wheeler's type 1(a).
Rim width: 0.96 cm

Period: G5
Phase: LXXXVIII
x-section: 0.40 cm

Special find no: 5815
Context: 487NE
Diameter: 16 cm
Weight: 3.6 g
Rim type: incurved beaked rim, type 1(d).
Rim width: 0.92 cm

Period: G4
Phase: LXXXI
x-section: 0.34 cm

Special find no: 15393
Context: 605NE
Diameter: 22 cm

Period: G4
Phase: LXXXIII
x-section: 0.45 cm

Rim type: incurved beaked rim, type 1(e).
Rim width: 0.97 cm

Special find no: 8581
Context: 305SW
Diameter: 20 cm
Weight: 7.4 g
Rim type: incurved beaked rim, type 1(a).
Rim width: 1.05 cm

Period: F
Phase: XCIII
x-section: 0.41 cm

Special find no: 40027
Context: 440SW/SE
Diameter: 26 cm
Weight: 11 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.02 cm

Period: G5
Phase: XCI
x-section: 0.37 cm

Special find no: 5492
Context: 416NE
Diameter: 26 cm
Weight: 4.4 g
Rim type: incurved beaked rim, type 1(c).
Rim width: 1.17 cm

Period: G5
Phase: XCI
x-section: 0.37 cm

Special find no: 6302
Context: 386
Diameter: 18 cm
Weight: 13.3 g
Rim type: incurved beaked rim similar to Wheeler's type 1(a) but with a squared of edge.
Rim width: 0.98 cm

Period: G5
Phase: XCI
x-section: 0.54 cm

Special find no: 5290
Context: 376NW
Diameter: 22 cm
Weight: 5.3 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 1.06 cm

Period: G5
Phase: LXXXVI
x-section: 0.34 cm

Special find no: 6788
Context: 459SW
Diameter: 20 cm
Weight: 2.3 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.03 cm

Period: G5
Phase: LXXXVII
x-section: 0.52 cm

Special find no: 8542
Context: 473
Diameter: 20 cm
Weight: 4.6 g
Rim type: incurved beak, type 1(i).
Rim width: 0.94 cm

Period: G5
Phase: LXXXVII
x-section: 0.51 cm

Special find no: 2415
Context: 375NW
Diameter: 26 cm
Weight: 6 g
Rim type: incurved square beaked rim, type 1(e).
Rim width: 0.93 cm

Period: G5
Phase: LXXXVIII
x-section: 0.44 cm

Special find no: 6986
Context: 487NE
Diameter: 18 cm
Weight: 11.5 g
Rim type: incurved beaked rim, type 1(d).
Rim width: 1.11 cm

Period: G4
Phase: LXXXI
x-section: 0.42 cm

Special find no: 15888
Context: 693NE
Diameter: 24 cm
Weight: 8.1 g
Rim type: incurved beaked rim, type 1(d) with more rounded edge.
Rim width: 0.94 cm

Period: G4
Phase: LXXXIV
x-section: 0.39 cm

Special find no: 7071
Context: 494NE
Diameter: 26 cm

Period: G3
Phase: LXXV
x-section: 0.64 cm

Weight: 4.2 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.89 cm

Special find no: 7181 **Period: G3**
Context: 490SW Phase: LXXV
Diameter: 28 cm x-section: 0.34 cm
Weight: 17.2 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.03 cm

Special find no: 10139 **Period: G2**
Context: 638 Phase: LXXIII
Diameter: 24 cm x-section: 0.48 cm
Weight: 29.7 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 0.99 cm

Special find no: 15267 **Period: G2**
Context: 616SE Phase: LXX
Diameter: 22 cm x-section: 0.4 cm
Weight: 6.2 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.83 cm

Special find no: 15303 **Period: G2**
Context: 601SE/SW Phase: LXXVII
Diameter: 24 cm x-section: 0.54 cm
Weight: 6 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 0.90 cm

Special find no: 15517 **Period: G2**
Context: 607 Phase: LXXI
Diameter: 24 cm x-section: 0.58 cm
Weight: 2.1 g
Rim type: incurved beaked rim, type 1(c).
Rim width: 1.04 cm

Special find no: 40029 **Period: I5**
Context: 880SW Phase: XXXIII
Diameter: 28 cm x-section: 0.44 cm
Weight: 11.7 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 0.87 cm

Weight: 13.3 g
Rim type: Incurved beaked rim, type 1(e).
Rim width: 1.23 cm

Special find no: 7182 **Period: G3**
Context: 490SW Phase: LXXV
Diameter: 22 cm x-section: 0.40 cm
Weight: 8 g
Rim type: incurved beaked rim, type 1(d).
Rim width: 0.97 cm

Special find no: 15230 **Period: G2**
Context: 634NW Phase: LXIX
Diameter: 22 cm x-section: 0.47 cm
Weight: 3.6 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.02 cm

Special find no: 15302 **Period: G2**
Context: 601SE/SW Phase: LXXVII
Diameter: 22 cm x-section: 0.47 cm
Weight: 13.2 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 1.07 cm

Special find no: 15387 **Period: G2**
Context: 616 Phase: LXX
Diameter: 24 cm x-section: 0.54 cm
Weight: 6.2 g
Rim type: incurved beaked rim, similar to type 1.
Rim width: 0.96 cm

Special find no: 15899 **Period: G2**
Context: 601SE/SW Phase: LXXVII
Diameter: 24 cm x-section: 0.44 cm
Weight: 9.6 g
Rim type: incurved beaked rim, similar to type 1(a).
Rim width: 1.04 cm

Other variants:

These include rim shapes that do not fit in with the other categories but are individually described below. There are five sherds ranging from D to G3.

Special find no: 8539 **Period: D**
Context: 332SE Phase: XCV
Diameter: 32 cm x-section: 0.45 cm
Weight: 12.6 g
Rim type: incurved, square edged beaked rim, similar to type 1(a).
This example has a particularly pronounced square edged beaked rim. The surface is also very fine with a particularly lustrous internal grey slip.
Rim width: 1.17 cm

Special find no: 6045 **Period: F**
Context: 365NW Phase: XCII
Diameter: 26 cm x-section: 0.53 cm
Weight: 7 g
Rim type: incurved beaked rim, beaked on external lip also.
In profile the rim has a 'T' shaped form.

This is the classic double 'hammer-head' profile
Rim width: 1.08 cm

Special find no: 8071 **Period: G3**
Context: 494NE Phase: LXXV
Diameter: 10 cm x-section: 0.45 cm
Weight: 3.3 g
Rim type: incurved beaked rim with unusual slight lip on external side.
This is an unusual form and has not been illustrated elsewhere. Rim width: 0.73 cm

Special find no: 40038 **Period: D**
Context: 600 Phase: XCV
Diameter: <36 cm x-section: 0.29 cm
Weight: 24.8 g
Rim type: incurved beaked rim, similar to type 1(e) but with a slight beaked edge externally.
Rim width: 1.11 cm

Special find no: 5403 **Period: G5**
Context: 399 Phase: XCI
Diameter: 26 cm x-section: 0.62 cm
Weight: 4.7 g
Rim type: incurved beaked rim with slight beak on external edge. Wheeler (1946: 47) does not illustrate this form. This is an unusual form and has not been illustrated elsewhere.
This is the classic double 'hammer-head' profile.
Rim width: 1.31 cm

Indistinct rim sherds:

Sf No.	Context	Period	Phase	Weight	X-section	Description
30100	4NW	A1	CXIV	14g		
30101	4NW	A1	CXIV	13g		
30102	4NW	A1	CXIV	36g		2 sherds
2250	99NE	A1	CXV	7g	0.43 cm	
30103	5NE	B5	CXII	12g		
30104	5SE	B5	CXII	1g		
30122	131SE	B5	XCVI	15g		
30114	65SW	B4	CX	7g		
30105	14SW	B2	CII	9.5g		
30111	47NW	B1	XCVI	5g		
30106	25NE	B1	XCVII	16g		
30107	25SW	B1	XCVII	15g		
30108	25NE	B1	XCVII	3.5g		
30109	25NE	B1	XCVII	8g		
30110	25NE	B1	XCVII	8g		
5139	25NW	B1	XCVII	12g	0.8 cm	
30112	50NE	D	XCV	15.5g		
30113	56	D	XCV	6.5g		
30115	76NE	D	XCV	3.5g	0.4 cm	
30116	76NE	D	XCV	9g		
30117	84NW	D	XCV	26g		2 sherds
30118	100NW	D	XCV	7g		
30119	111SW	D	XCV	7g		
30120	113NE	D	XCV	7g	0.5 cm	2 sherds
30121	126SE	D	XCV	14g		
30123	134NE	D	XCV	34.5g		
30124	138NW	D	XCV	7g		
30125	184NE	D	XCV	7.5g		
8162	324NE	D	XCV	3.5g	0.57 cm	
1485	113NE	D	XCV	10.4g	0.52 cm	
1758	289NE	D	XCV	13.4g	0.7 cm	
1977	334NE	D	XCV	15.6g	0.6 cm	
2243	301NE	D	XCV	8g	0.52 cm	
2251	204NW	D	XCV	8g	0.36 cm	
2253	256SE	D	XCV	2g	0.5 cm	
8815	250SW	D	XCV	8g	0.99 cm	
2390	373NW	D	XCV	9.5g	0.52 cm	
2391	373NW	D	XCV	8.6g	0.65 cm	
2392	373NW	D	XCV	12g	0.38 cm	
2547	352NW	D	XCV	11.5g	0.36 cm	
2590	359NW	D	XCV	1g	0.4 cm	
2590	359NW	D	XCV	15g	0.4 cm	
2645	356NW	D	XCV	8g	0.6 cm	
2651	356NE	D	XCV	5g	0.5 cm	
5137	335NE	D	XCV	12g	0.32 cm	
5220	322	D	XCV	2g	0.25 cm	
5221	356NW	D	XCV	2g	0.29 cm	
6218	313SW	D	XCV	14g	0.7 cm	
2954	265NW	D	XCV	11g	0.31 cm	
5222	364NE	F	XCII	7.6g	0.56 cm	
2909	367SW	F	XCII	9g	0.32 cm	
6082	365NE	F	XCII	11g	0.52 cm	
6129	366SE	F	XCII	22g	0.56 cm	
6246	389	F	XCII	4g	0.53 cm	
8758	366	F	XCII	1g	0.2 cm	
8810	367SW	F	XCII	13g	0.57 cm	
2268	194NW	F	XCIII	3g	0.54 cm	
2324	306SW	F	XCIII	3.5g	0.28 cm	
2533	306SW	F	XCIII	1.5g	0.27 cm	
30126	207NE	F	XCIII	11.4g		
2617	73SW	F	XCIII	2.6g	0.45 cm	
2627	73NW	F	XCIII	11.6g	0.3 cm	
6094	378SE	F	XCIII	9.4g	0.18 cm	
5638	305SW	F	XCIII	29g	0.54 cm	2 sherds
8807	374NW	F	XCIII	23.5g	0.6 cm	
8553	73SW	F	XCIII	10g	0.27 cm	
6424	405NW	G5	XC	9.4g	0.38 cm	
6227	386NW	G5	XCI	3.7g	0.35 cm	
6415	406SW	G5	XCI	49g	0.4 cm	
6416	406SW	G5	XCI	12g	0.45 cm	
6329	385SW	G5	XCI	5.6g	0.49 cm	
6383	386NW	G5	XCI	10g	0.31 cm	
5324	403NE	G5	XCI	2g	0.27 cm	
8178	399	G5	XCI	13g	0.71 cm	

5646	414SW	G5	XCI	8g	0.4 cm	2 sherds
8170	424NW	G5	XCI	11g	0.24 cm	
7069	404NE	G5	XCI	9.5g	0.44 cm	
6397	390SE	G5	LXXXVI	12g	0.45 cm	
5285	376NW	G5	LXXXVI	19g	0.64 cm	
8165	402	G5	LXXXVII	18g	0.37 cm	
8166	402	G5	LXXXVII	3g	0.57 cm	
8146	464SE	G5	LXXXVII	5g	0.55 cm	
8151	442SE	G5	LXXXVII	7g	0.37 cm	
8152	450SW	G5	LXXXVII	1g	0.25 cm	
8161	464SE	G5	LXXXVII	8g	0.32 cm	
8143	449SW	G5	LXXXVII	6.4g	0.52 cm	
6470	409NW	G5	LXXXVIII	8g	0.44 cm	
8247	409NW	G5	LXXXVIII	6.4g	0.51 cm	
6816	470SW	G4	LXXXI	3g	0.24 cm	
6820	470SW	G4	LXXXI	27g	0.53 cm	
6849	470SW	G4	LXXXI	1g	0.23 cm	
6834	487NE	G4	LXXXI	6g	0.27 cm	
8177	487NE	G4	LXXXI	21g	0.32 cm	
8171	467	G4	LXXXI	1g	0.19 cm	
8173	470SW	G4	LXXXI	8g	0.41 cm	
8174	470SW	G4	LXXXI	1g	0.32 cm	
8148	487	G4	LXXXI	4.4g	0.44 cm	
6940	487NE	G4	LXXXI	3.4g	0.28 cm	
7003	469SE	G4	LXXXI	4g	0.16 cm	
5873	487NE	G4	LXXXI	10g	0.43 cm	
7000	487NE	G4	LXXXI	2.5g	0.28 cm	
6850	470SW	G4	LXXXI	55g	0.44 cm	
6859	487NE	G4	LXXXI	5g	0.35 cm	
6854	470NW	G4	LXXXI	16g	0.47 cm	
5814	487NE	G4	LXXXI	5g	0.61 cm	
8186	469SE	G4	LXXXI	3.4g	0.3 cm	
8194	476NE	G4	LXXXI	6.4g	0.35 cm	
8085	492	G3	LXXV	4g	0.38 cm	
8182	493SE	G3	LXXV	4.4g	0.44 cm	
8087	494NE	G3	LXXV	1.5g	0.19 cm	
7141	494NE	G3	LXXV	9g	0.46 cm	
7150	494NE	G3	LXXV	7g	0.28 cm	
7145	492SE	G3	LXXV	8g	0.48 cm	
7206	493SE	G3	LXXV	3.7g	0.27 cm	
7208	493SE	G3	LXXV	1g	0.38 cm	
8201	490SW	G3	LXXV	1g	0.46 cm	
8220	490	G3	LXXV	12.5g	0.44 cm	
8081	494NE	G3	LXXV	11g	0.29 cm	
7091	494NE	G3	LXXV	18g	0.48 cm	4 sherds
7114	490SW	G3	LXXV	20g	0.42 cm	6 sherds
7110	490SW	G3	LXXV	5g	0.33 cm	
7089	490SW	G3	LXXV	5g	0.71 cm	
7120	490SW	G3	LXXV	18g	0.35 cm	
7051	494NE	G3	LXXV	6g	0.35 cm	4 sherds
7223	496	G3	LXXVI	2g	0.25 cm	
7231	506SW	G3	LXXVI	10g	0.36 cm	

6.2.2.3 Rouletted ware with external decoration

This usually consists of rows of deep grooves running around the outside of the dish just below the rim of the vessel. Five examples of this form of decoration are illustrated in *Ancient India 2* (Wheeler 1946: 47). These show various types of external ribbing, a feature absent in

pre-Arretine layers at Arikamedu but which occurs occasionally in later deposits (ibid.: 46). These 15 sherds range from H1 to B1 (c. 200 cal. BC-AD 1100) with a peak in period G3 (c. 200 cal. BC-AD 130 cal.).

Special find no: 40203
Context: 25NW
Diameter: unknown
Weight: 3.1 g
Period: B1
Phase: XCVII
x-section: 0.41 cm
Decoration: similar to Wheeler's type 1(c) with an external band. The decoration consists of a single groove 0.23 cm wide and 0.58 cm from the rim.

Special find no: 6033
Context: 364 NE
Diameter: 14 cm
Weight: 8.7 g
Period: F
Phase: XCII
x-section: 0.32 cm
Decoration: similar to Wheeler's type 1(i) with external grooves

Special find no: 40202
Context: 56SE
Diameter:
Weight: 3.3 g
Period: D
Phase: XCV
x-section: 0.29 cm
Decoration: similar to Wheeler's type 1(i) with external bands 0.41 cm from the rim. The decoration consists of two grooves forming a band 0.39 cm wide.

Special find no: 2865
Context: 358SE
Diameter: N/A
Weight: 2.2 g
Period: F
Phase: XCIII
x-section: 0.31 cm
Decoration: similar to Wheeler's type 1(c) with external grooves.

Unglazed Ceramics

0.11 cm from the rim. The decoration consists of four grooves within a band 0.4cm wide.

Special find no: 6254
Context: 390SE
Diameter: unknown
Weight: 4.6 g
Decoration: similar to Wheeler's type 1(e) with external grooves 0.61 cm from the rim. The decoration consists of a single groove 0.2 cm wide.

Period: G5
Phase: LXXXVI
x-section: 0.38 cm

Special find no: 8215
Context: 431SW/SE
Diameter: N/A
Weight: 1.8 g
Decoration: body sherd with external decoration. Deep band of three grooves 1.3cm wide. Clearly Wheeler's (1946: 47) type 1(b).

Period: G5
Phase: XII
x-section: 0.48 cm

Special find no: 15394
Context: 605NE
Diameter: 13 cm
Weight: 10.2 g
Rim type: similar to Wheeler's type 1(b) with external grooves, 0.93 cm from the rim. The decoration consists of two grooves within a band 0.48 cm wide.
(This sherd is also included in the 'baby' Rouletted ware section).

Period: G4
Phase: LXXXIII
x-section: 0.33 cm

Special find no: 7140
Context: 494NE
Diameter: 15 cm
Weight: 9.4 g
Decoration: similar to Wheeler's type 1(b) with external grooves 0.36 cm from the rim. The decoration consists of two grooves forming a band 0.47 cm wide.

Period: G3
Phase: LXXV
x-section: 0.31 cm

Special find no: 25183
Context: 506SW
Diameter: 12 cm
Weight: 2.9 g
Rim type: similar to Wheeler's type 1(c) with external bands 0.61 cm below the rim. The decoration consists of three grooves within a band 0.76 cm wide.
(This sherd is also included in the 'baby' Rouletted ware section).

Period: G3
Phase: LXXVI
x-section: 0.38 cm

Special find no: 16239
Context: 697NW
Diameter: 15 cm
Weight: 5.2 g
Decoration: similar to Wheeler's type 1(i) with external grooves 0.52 cm from the rim. The decoration consists of three grooves within a band 0.46 cm wide.

Period: H1
Phase: LXIV
x-section: 0.29 cm

Three grooves visible forming a band 0.51cm wide.

Special find no: 6442
Context: 409NW
Diameter: 15 cm
Weight: 1.8 g
Rim type: incurved beaked rim of 'baby' Rouletted ware, similar to Wheeler's type 1(c). Two grooves around external surface, 0.6cm from rim forming a band 0.31 cm wide.
(This sherd is also included in the 'baby' Rouletted ware section).
[Fig. 6.3]

Period: G5
Phase: LXXXVIII
x-section: 0.27 cm

Special find no: 7023
Context: 487NE
Diameter: 26 cm
Weight: 5.6 g
Decoration: similar to Wheeler's type 1(b) with external grooves 0.72 cm from the rim. The decoration consists of two grooves forming a band 0.29 cm wide.
[Fig. 6.3]

Period: G4
Phase: LXXXI
x-section: 0.35 cm

Special find no: 7024
Context: 493SE
Diameter: 20 cm
Weight: 11.2 g
Decoration: similar to Wheeler's type 1(i) with external grooves 0.51 cm from the rim. The decoration consists of three grooves within a band 0.7cm wide.
[Fig. 6.3]

Period: G3
Phase: LXXV
x-section: 0.29 cm

Special find no: 7157
Context: 494NE
Diameter: N/A
Weight: 5.4 g
Decoration: similar to Wheeler's type 1(c) with external grooves. Total of three grooves visible forming a band 0.49 cm wide.

Period: G3
Phase: LXXV
x-section: 0.28 cm

Special find no: 15815
Context: 643NW
Diameter: N/A
Weight: 1.9 g
Decoration: similar to Wheeler's type 1(c) with external grooves. The decoration consists of three grooves, but the total number of grooves and the width of the band is unknown.

Period: G2
Phase: LXXII
x-section: 0.27 cm

6.2.2.4 Rouletted ware with internal roulette decoration

These sherds contain incised decoration on the interior of the dish as mentioned above in section 6.2.1. There are several theories pertaining to the production of this internal decoration. These include stamping (Coningham, pers. comm.), chattering (Begley 1988: 440) and rouletting (Wheeler 1946: 46). Recent research has indicated that

rouletting was the probable technique used to produce the various shapes (Ford 2000). They range from periods I8 to A (c. 360 cal. BC-AD 1100) with a peak in period G5 (c. 200 cal. BC-AD 130 cal.).

Special find no: 40201
Context: 4NW
Weight: 5.1 g
Roulette type: dia

Period: A
Phase: CXIV
x-section: 0.43 cm

Special find no: A5
Context: 100NE
Weight: 1.9 g
Roulette type: lines

Period: D
Phase: XCV
x-section: 0.49 cm

Special find no: 983
Context: 41SW
Weight: 2.6 g
Roulette type: line/tria

Period: B2
Phase: C
x-section: 0.29 cm

Special find no: 970
Context: 88NE
Weight: 2.1 g
Roulette type: dia/cont

Period: D
Phase: XCV
x-section: 0.4 cm

Anuradhapura: The Artefacts

Special find no: 989 Context: 122SE Weight: 4.4 g Roulette type: line/cont	Period: D Phase: XCV x-section: 0.38 cm	Special find no: 1327 Context: 76NE Weight: 0.8 g Roulette type: spike	Period: D Phase: XCV x-section: 0.23 cm
Special find no: 1509 Context: 254SE Weight: 4.8 g Roulette type: tri	Period: D Phase: XCV x-section: 0.38 cm	Special find no: 1629 Context: 256SE Weight: 3 g Roulette type: tri/dia	Period: D Phase: XCV x-section: 0.28 cm
Special find no: 1642 Context: 283NE Weight: 2.8 g Roulette type: dia	Period: D Phase: XCV x-section: 0.36 cm	Special find no: 1684 Context: 256SE Weight: 4.4 g Roulette type: dia	Period: D Phase: XCV x-section: 0.43 cm
Special find no: 1803 Context: 267SE Weight: 3.9 g Roulette type: spike	Period: D Phase: XCV x-section: 0.22 cm	Special find no: 1960 Context: 261NW Weight: 1.6 g Roulette type: spike	Period: D Phase: XCV x-section: 0.37 cm
Special find no: 1971 Context: 334NE Weight: 2.8 g Roulette type: dia	Period: D Phase: XCV x-section: 0.34 cm	Special find no: 2563 Context: 359NW Weight: 10.6 g Roulette type: dia	Period: D Phase: XCV x-section: 0.38 cm
Special find no: 15205 Context: 600 Weight: 2 g Roulette type: cont	Period: D Phase: XCV x-section: 0.38 cm	Special find no: 1723 Context: 309NE Weight: 6.4 g Roulette type: tri	Period: F Phase: XCIII x-section: 0.47 cm
Special find no: 1724 Context: 309NE Weight: 7.4 g Roulette type: tri	Period: F Phase: XCIII x-section: 0.44 cm	Special find no: 1742 Context: 307SE Weight: 12.5 g Roulette type: dia	Period: F Phase: XCIII x-section: 0.49 cm
Special find no: 5298 Context: 388NW Weight: 12.9 g Roulette type: spike	Period: F Phase: XCIII x-section: 0.46 cm	Special find no: 5630 Context: 374NW Weight: 5.5 g Roulette type: spike	Period: F Phase: XCIII x-section: 0.35 cm
Special find no: 5871 Context: 369 Weight: 7.1 g Roulette type: tri/cont	Period: F Phase: XCIII x-section: 0.44 cm	Special find no: 6376 Context: 304NW Weight: 7.9 g Roulette type: crescent	Period: F Phase: XCIII x-section: 0.35 cm
Special find no: 2260 Context: 73SE Weight: 1.9 g Roulette type: spike	Period: F Phase: XCII x-section: 0.32 cm	Special find no: 2691 Context: 73NE Weight: 2.8 g Roulette type: oval/spike	Period: F Phase: XCII x-section: 0.28 cm
Special find no: 2694 Context: 366SE Weight: 2.6 g Roulette type: oval/line/cont Note: unusual mixture of decoration types.	Period: F Phase: XCII x-section: 0.35 cm	Special find no: 2698 Context: 73NE Weight: 2.8 g Roulette type: spike/oval?	Period: F Phase: XCII x-section: 0.28 cm
Special find no: 2963 Context: 365NW Weight: 5.4 g Roulette type: dia/cont	Period: F Phase: XCII x-section: 0.42 cm	Special find no: 5421 Context: 73SE Weight: 4.6 g Roulette type: cont tri	Period: F Phase: XCII x-section: 0.53 cm
Special find no: 6256 Context: 391SW Weight: 4.8 g Roulette type: spike Note: possible join in decoration where the roulette wheel has been removed, some overlapping.	Period: F Phase: XCII x-section: 0.36 cm	Special find no: 6085 Context: 365NW Weight: 9.8 g Roulette type: tri/cont	Period: F Phase: XCII x-section: 0.46 cm
Special find no: 6091 Context: 365NW Weight: 1.9 g Roulette type: spike	Period: F Phase: XCII x-section: 0.32 cm	Special find no: 6256 Context: 391SW Weight: 2.2 g Roulette type: spike	Period: F Phase: XCII x-section: 0.29 cm
Special find no: 8549 Context: 73SW Weight: 5.6 g Roulette type: lines	Period: F Phase: XCII x-section: 0.58 cm	Special find no: 8551 Context: 73SW Weight: 9.1 g Roulette type: tri	Period: F Phase: XCII x-section: 0.3 cm

Unglazed Ceramics

Note: single band of rouletted decoration. The band is c. 1.44cm and is made up of 11 rows of triangular impressions.

Special find no: 8563
Context: 365NW
Weight: 5.1 g
Roulette type: cont/tri

Period: F
Phase: XCII
x-section: 0.36 cm

Special find no: 5497
Context: 364
Weight: 9.7 g
Roulette type: oval/tri

Period: F
Phase: XCI
x-section: 0.35 cm

Note: possible join where the roulette wheel was removed

Special find no: 5632
Context: 364NE
Weight: 14.2 g
Roulette type: spike

Period: F
Phase: XCI
x-section: 0.43 cm

Special find no: 5632
Context: 364NE
Weight: 2.6 g
Roulette type: tri

Period: F
Phase: XCI
x-section: 0.36 cm

Special find no: 5632
Context: 364NE
Weight: 3.7 g
Roulette type: tri/dia/cont

Period: F
Phase: XCI
x-section: 0.39 cm

Special find no: 5497
Context: 364
Weight: 3.1 g
Roulette type: spike

Period: F
Phase: XCI
x-section: 0.4 cm

Special find no: 6267
Context: 386NW
Weight: 11 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.36 cm

Special find no: 6267
Context: 386NW
Weight: 3.3 g
Roulette type: lines

Period: G5
Phase: XCI
x-section: 0.36 cm

Special find no: 6475
Context: 415SE
Weight: 3.4 g
Roulette type: line

Period: G5
Phase: XCI
x-section: 0.30 cm

Special find no: 6528
Context: 416NE
Weight: 4.6 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.32 cm

Special find no: 6534
Context: 417NW
Weight: 20.9 g
Roulette type: spike
[Fig. 6.3]

Period: G5
Phase: XCI
x-section: 0.46 cm

Special find no: 6564
Context: 417NW
Weight: 1.3 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.32 cm

Special find no: 6564
Context: 417NW
Weight: 2.2 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.28 cm

Special find no: A3?
Context: 386SW
Weight: 1.5 g
Roulette type: oval

Period: G5
Phase: XCI
x-section: 0.31 cm

Special find no: 5333
Context: 399SE
Weight: 1.5 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.36 cm

Special find no: 5370
Context: 416NE
Weight: 2.7 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.35 cm

Special find no: 5404
Context: 399
Weight: 7.5 g
Roulette type: dia

Period: G5
Phase: XCI
x-section: 0.32 cm

Special find no: 5411
Context: 427
Weight: 3.5 g
Roulette type: spike?

Period: G5
Phase: XCI
x-section: 0.37 cm

Special find no: 5418
Context: 416NE
Weight: 1.2 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.27 cm

Special find no: 5471
Context: 417SW
Weight: 5.8 g
Roulette type: square/tri

Period: G5
Phase: XCI
x-section: 0.44 cm

Special find no: 8574
Context: 386NW
Weight: 2.9 g
Roulette type: lines

Period: G5
Phase: XCI
x-section: 0.35 cm

Special find no: 5491
Context: 416NE
Weight: 3.9 g
Roulette type: ?

Period: G5
Phase: XCI
x-section: 0.45 cm

Special find no: 5600
Context: 395SW
Weight: 5.1 g
Roulette type: dia/tri/con

Period: G5
Phase: XCI
x-section: 0.48 cm

Special find no: 5626
Context: 424NW
Weight: 5.2 g
Roulette type: dia

Period: G5
Phase: XCI
x-section: 0.38 cm

Special find no: 8030
Context: 422
Weight: 2.6 g
Roulette type: oval

Period: G5
Phase: XCI
x-section: 0.40 cm

Special find no: 8575
Context: 385NW
Weight: 3.3 g
Roulette type: spike

Period: G5
Phase: XCI
x-section: 0.42 cm

Special find no: 6365
Context: 409NW
Weight: 6 g
Roulette type: spike

Period: G5
Phase: LXXXVIII
x-section: 0.36 cm

Special find no: 2369
Context: 375NW
Weight: 2.5 g
Roulette type: spike

Period: G5
Phase: LXXXVIII
x-section: 0.31 cm

Special find no: 5343
Context: 409NE

Period: G5
Phase: LXXXVIII

Special find no: 6598
Context: 426NE

Period: G5
Phase: LXXXVIII

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Weight: 3.7 g Roulette type: tri/fan	x-section: 0.27 cm	Weight: 1 g Roulette type: line/tri	x-section: 0.28 cm
Special find no: 6598 Context: 426NE Weight: 2.4 g Roulette type: spike	Period: G5 Phase: LXXXVIII x-section: 0.31 cm	Special find no: 6625 Context: 426NE Weight: 2.3 g Roulette type: spike	Period: G5 Phase: LXXXVIII x-section: 0.30 cm
Special find no: 6641 Context: 432SE Weight: 6.4 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.33 cm	Special find no: 6699 Context: 409NE Weight: 5.5 g Roulette type: spike/ tri	Period: G5 Phase: LXXXVIII x-section: 0.37 cm
Special find no: 5482 Context: 409NW Weight: 6 g Roulette type: spike	Period: G5 Phase: LXXXVIII x-section: 0.3 cm	Special find no: 5485 Context: 419 Weight: 1.6 g Roulette type: spike	Period: G5 Phase: LXXXVIII x-section: 0.27 cm
Special find no: 6770 Context: 437NE Weight: 2.1 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.30 cm	Special find no: 69 Context: 437SE Weight: 6 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.38 cm
Special find no: 8160 Context: 448SW Weight: 1.8 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.24 cm	Special find no: 8180 Context: 439 Weight: 3.1 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.40 cm
Special find no: 8218 Context: 437NE/SE Weight: 3.1 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.38 cm	Special find no: 8218 Context: 437NE/SE Weight: 2.9 g Roulette type: square	Period: G5 Phase: LXXXVII x-section: 0.39 cm
Special find no: 8232 Context: 441NE Weight: 3.4 g Roulette type: spike	Period: G5 Phase: LXXXVII x-section: 0.29 cm	Special find no: 6106 Context: 376NW Weight: 5.2 g Roulette type: spike	Period: G5 Phase: LXXXVI x-section: 0.42 cm
Special find no: 6398 Context: 390SE Weight: 3.7 g Roulette type: spike/line	Period: G5 Phase: LXXXVI x-section: 0.36 cm	Special find no: 5666 Context: 390NE Weight: 2.8 g Roulette type: spike	Period: G5 Phase: LXXXVI x-section: 0.28 cm
Special find no: 5488 Context: 376 Weight: 1.3 g Roulette type: spike	Period: G5 Phase: LXXXVI x-section: 0.34 cm	Special find no: 8082 Context: 490SW Weight: 6 g Roulette type: spike	Period: G5 Phase: LXXXV x-section: 0.39 cm
Special find no: 8249 Context: 487NE Weight: 1.9 g Roulette type: spike	Period: G4 Phase: XCIII x-section: 0.42 cm	Special find no: 5733 Context: 487NE Weight: 4.1 g Roulette type: lines	Period: G4 Phase: XCIII x-section: 0.25 cm
Special find no: 5735 Context: 487NE Weight: 5.6 g Roulette type: dia	Period: G4 Phase: XCIII x-section: 0.34 cm	Special find no: 5735 Context: 487NE Weight: 1.7 g Roulette type: nondescript	Period: G4 Phase: XCIII x-section: 0.36 cm
Special find no: 6868 Context: 487NE Weight: 26.9 g Roulette type: spike [Plate 6.1]	Period: G4 Phase: XCIII x-section: 0.34 cm	Special find no: 7008 Context: 487NE Weight: 1.9 g Roulette type: spike	Period: G4 Phase: XCIII x-section: 0.32 cm
Special find no: 7021 Context: 487NE Weight: 9.4 g Roulette type: spike	Period: G4 Phase: XCIII x-section: 0.33 cm	Special find no: 7026 Context: 487NE Weight: 1.9 g Roulette type: spike	Period: G4 Phase: XCIII x-section: 0.34 cm
Special find no: 15817 Context: 693 Weight: 2.4 g Roulette type: spike	Period: G4 Phase: LXXXIV x-section: 0.32 cm	Special find no: 15890 Context: 693NE Weight: 1.4 g Roulette type: spike	Period: G4 Phase: LXXXIV x-section: 0.36 cm
Special find no: 10157 Context: 605 Weight: 3.1 g	Period: G4 Phase: LXXXIII x-section: 0.32 cm	Special find no: 8163 Context: 479 Weight: 1.4 g	Period: G4 Phase: LXXXII x-section: 0.36 cm

Unglazed Ceramics

Roulette type: spike

Special find no: 8163
Context: 479
Weight: 3.2 g
Roulette type: spike

Period: G4
Phase: LXXXII
x-section: 0.34 cm

Special find no: 6827
Context: 476NE
Weight: 4.3 g
Roulette type: spike

Period: G4
Phase: LXXXI
x-section: 0.44 cm

Special find no: 5978
Context: 495SE
Weight: 1.4 g
Roulette type: spike

Period: G4
Phase: LXXX
x-section: 0.37 cm

Special find no: 16241
Context: 503
Weight: 4.8 g
Roulette type: spike

Period: G3
Phase: LXXVI
x-section: 0.34 cm

Special find no: 7028
Context: 492SE
Weight: 2.4 g
Roulette type: lines

Period: G3
Phase: LXXV
x-section: 0.26 cm

Note: example of the internal marks caused by wheel turning at the centre of the vessel

Special find no: 7172
Context: 492SE
Weight: 15 g
Roulette type: spike

Period: G3
Phase: LXXV
x-section: 0.34 cm

Note: some faint decoration is visible on the external surface?

Special find no: 7178
Context: 494NE
Weight: 4.6 g
Roulette type: spike

Period: G3
Phase: LXXV
x-section: 0.28 cm

Special find no: 7194
Context: 493SE
Weight: 3.9 g
Roulette type: spike

Period: G3
Phase: LXXV
x-section: 0.33 cm

Note: appears to have been decorated on the internal and external surfaces - 'J' sampled for mineral content

Special find no: 15918
Context: 635
Weight: 7.8 g
Roulette type: spike

Period: G2
Phase: LXXIII
x-section: 0.44 cm

Special find no: 15919
Context: 635
Weight: 3.7 g
Roulette type: tri/cont

Period: G2
Phase: LXXIII
x-section: 0.26 cm

Special find no: 10169
Context: 635
Weight: 15.6 g
Roulette type: spike

Period: G2
Phase: LXXIII
x-section: 0.36 cm

Special find no: 15199
Context: 602NW
Weight: 5.6 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.37 cm

Special find no: 15399
Context: 602NE
Weight: 3.5 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.32 cm

Special find no: 15521
Context: 601
Weight: 8.9 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.32 cm

Note: overlap where roulette removed - unusual

Roulette type: spike

Special find no: 6821
Context: 470SW
Weight: 4.6 g
Roulette type: spike

Period: G4
Phase: LXXXI
x-section: 0.42 cm

Special find no: 8167
Context: 469SE
Weight: 1.7 g
Roulette type: cont/dia

Period: G4
Phase: LXXXI
x-section: 0.34 cm

Special find no: 7202
Context: 499SW
Weight: 9.2 g
Roulette type: cont/dia

Period: G3
Phase: LXXVI
x-section: 0.44 cm

Special find no: 1201
Context: 493SE
Weight: 1.3 g
Roulette type: line/tri

Period: G3
Phase: LXXV
x-section: 0.28 cm

Special find no: 7137
Context: 492SE
Weight: 4.8 g
Roulette type: tri/fan

Period: G3
Phase: LXXV
x-section: 0.31 cm

Special find no: 7172
Context: 492SE
Weight: 6 g
Roulette type: spike (short)

Period: G3
Phase: LXXV
x-section: 0.39 cm

Special find no: 7188
Context: 494NE
Weight: 14.4 g
Roulette type: spike

Period: G3
Phase: LXXV
x-section: 0.44 cm

Special find no: 15816
Context: 604NE
Weight: 11.5 g
Roulette type: spike

Period: G3
Phase: LXXV
x-section: 0.33 cm

Special find no: 15891
Context: 635NW
Weight: 5.4 g
Roulette type: spike

Period: G2
Phase: LXXIII
x-section: 0.35 cm

Special find no: 40200
Context: 635NW
Weight: 5.8 g
Roulette type: spike

Period: G2
Phase: LXXIII
x-section: 0.42 cm

Special find no: 15199
Context: 602NW
Weight: 1.8 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.31 cm

Special find no: 15389
Context: 601SE/SW
Weight: 3.1 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.30 cm

Special find no: 15510
Context: 602NE
Weight: 2.3 g
Roulette type: line/cont

Period: G2
Phase: LXXII
x-section: 0.31 cm

Special find no: 15813
Context: 643NW
Weight: 3.4 g
Roulette type: spike

Period: G2
Phase: LXXII
x-section: 0.30 cm

Special find no: 15813 Context: 643NW Weight: 4.3 g Roulette type: tri/cont	Period: G2 Phase: LXXII x-section: 0.34 cm	Special find no: 15814 Context: 643NW Weight: 3.9 g Roulette type: spike/tri	Period: G2 Phase: LXXII x-section: 0.41 cm
Special find no: 15516 Context: 607 Weight: 3.4 g Roulette type: spike	Period: G2 Phase: LXXI x-section: 0.32 cm	Special find no: 10143 Context: 634NW Weight: 4.3 g Roulette type: spike	Period: G2 Phase: LXIX x-section: 0.32 cm
Special find no: 15511 Context: 609NW Weight: 4.9 g Roulette type: spike	Period: G2 Phase: LXIX x-section: 0.41 cm	Special find no: 15511 Context: 609NW Weight: 5.2 g Roulette type: spike	Period: G2 Phase: LXIX x-section: 0.28 cm
Special find no: 15835 Context: 615NW Weight: 4 g Roulette type: tri/cont	Period: G2 Phase: LXVIII x-section: 0.31 cm	Special find no: 15917 Context: 615 Weight: 16 g Roulette type: spike	Period: G2 Phase: LXVIII x-section: 0.44 cm
Special find no: 15270 Context: 615NE Weight: 2.2 g Roulette type: spike	Period: G2 Phase: LXVIII x-section: 0.32 cm	Special find no: 15887 Context: 663 Weight: 3.2 g Roulette type: ribbed band	Period: G1 Phase: LXVI x-section: 0.31 cm
Special find no: 15833 Context: 670NW Weight: 2.6 g Roulette type: spike Description: faint	Period: H Phase: LXIV x-section: 0.30 cm	Special find no: 15821 Context: 698NE Weight: 1.4 g Roulette type: spike	Period: H1 Phase: LXIV x-section: 0.33 cm
Special find no: 15821 Context: 698NE Weight: 4.7 g Roulette type: spike	Period: H1 Phase: LXIV x-section: 0.30 cm	Special find no: 15913 Context: 697 Weight: 4.1 g Roulette type: oval	Period: H1 Phase: LXIV x-section: 0.34 cm
Special find no: 16294 Context: 729NW Weight: 10.1 g Roulette type: spike	Period: I8 Phase: LIII x-section: 0.34 cm		

6.2.2.5 Rouletted ware discs

This category represents rounded discs of Rouletted ware pottery. They are fine, slipped and are black, brown, grey or red coloured due to the firing conditions. Their use is unknown, although they are thought to be gaming pieces (Deraniyagala 1972). They occur from period I8 to B4 (360 cal. BC to AD 1100), although they are dominant in period

G, especially G5 (200 cal. BC to AD 130 cal.). The average diameter size is 2.6 cm, and they appear to become larger later in the sequence in periods F, D and B. This may be due to a greater demand earlier in period G necessitating the use of smaller discs. As they became less popular, larger discs could be formed and used.

Special find no: 40019 Context: 65SW Weight: 12.3g Diameter: 4.5 cm Description: Disc.	Period: B4 Phase: CX	Special find no: 966 Context: 55NE Weight: 3g Diameter: 4 cm Description: Disc.	Period: B1 Phase: XCVI
Special find no: 40018 Context: 252SW Weight: 0.8g Diameter: 2.5 cm Description: Disc.	Period: D Phase: XCV	Special find no: 25180 Context: 313NW Weight: 6g Diameter: 2.5 cm Description: Disc.	Period: D Phase: XCV
Special find no: 2650 Context: 359NW Weight: 1.5g Diameter: 2.5 cm Description: Disc.	Period: D Phase: XCV	Special find no: 2853 Context: 373NW Weight: 10g Diameter: 4 cm Description: Disc. Form 32/A/A/1	Period: D Phase: XCV
Special find no: 2746 Context: 368NW Weight: 7.2g Diameter: 3.5 cm Description: Disc.	Period: D Phase: XCV	Special find no: 6062 Context: 365NW Weight: 11g Diameter: 3 cm Description: Disc.	Period: F Phase: XCII
Special find no: 25176 Context: 369SE Weight: 2g	Period: F Phase: XCIII	Special find no: 5987 Context: 414SW Weight: 0.5g	Period: G5 Phase: XCI

Unglazed Ceramics

Diameter: 2.5 cm
Description: Disc.

Special find no: 6565
Context: 417NW
Weight: 1g
Diameter: 1.7 cm
Description: Disc.

Special find no: 25173
Context: 449
Weight: 0.5g
Diameter: 1 cm
Description: Disc.

Special find no: 5732
Context: 487NE
Weight: 2.5g
Diameter: 3 cm
Description: Disc.

Special find no: 7167
Context: 494NE
Weight: 1g
Diameter: 2 cm
Description: Disc. Form 79/A/B/1

Special find no: 16238
Context: 768NE
Weight: 0.5g
Diameter: 2 cm
Description: Disc. Form 79/A/A/2

Period: G5
Phase: XCI

Period: G5
Phase: LXXXVII

Period: G4
Phase: LXXXI

Period: G3
Phase: LXXV

Period: I8
Phase: LX

Diameter: 1 cm
Description: Disc. Form 79/A/A/1

Special find no: 6182
Context: 376NW
Weight: 6.2g
Diameter: 3 cm
Description: Disc.

Special find no: 6766
Context: 457SW
Weight: 1g
Diameter: 1.5 cm
Description: Disc.

Special find no: 15391
Context: 605NE
Weight: 5g
Diameter: 4 cm
Description: Disc.

Special find no: 16390
Context: 663NW
Weight: 1g
Diameter: 1.5 cm
Description: Disc.

Period: G5
Phase: LXXXVI

Period: G5
Phase: LXXXVII

Period: G4
Phase: LXXXIII

Period: G1
Phase: LXVI

6.2.2.6 Rouletted ware body sherds

Sf No	Context	Period	Phase	Weight	X-Sect	Description
40060	1SW	A2	CXVIII	4.8 g	0.56 cm	
20000	3NW	A1	CXV	3.8g		
20001	4SW	A1	CXIV	1.1g		
20002	4SW	A1	CXIV	5.4g		
20003	4NE	A1	CXIV	6.7g		
20004	4NW	A1	CXIV	0.6g		
20005	4SE	A1	CXIV	10.1g		
40066	5NE	B5	CXII	8.8 g	0.5 cm	
40206	115SE	B5	XCVI	14.2 g	0.48 cm	
20076	129SE	B5	XCVI	1.9g	0.3 cm	
2550	532NW	B4	CX	6.4 g	0.41 cm	
20040	65SW	B4	CX	2.3g		
20041	65SW	B4	CX	1.4g		
40209	9SW	B4	CVI	3.7 g	0.36 cm	
20010	9SW	B4	CVI	1.3g		
20011	9	B4	CVI	7.6g		
20012	9NW	B4	CVI	7.8g		2 sherds
20013	9SW	B4	CVI	9.3g		3 sherds
20014	9SE	B4	CVI	4.5g		2 sherds
20017	15SE	B4	CXI	0.3g		
20018	15NW	B4	CXI	4.2g		
5140	15NW	B4	CXI	5.2g	0.35 cm	
20006	5SE	B3	CXII	5g		
20007	5	B3	CXII	1g		
20008	5SW	B3	CXII	12.3g		2 sherds
20009	5NW	B3	CXII	1.9g		
40204	26	B3	CIV	10.3 g	0.39 cm	
20028	26NW	B3	CIV	2.6g		
20015	14NW	B2	CII	6g		2 sherds
20016	14NE	B2	CII	1.2g		
20019	24NE	B2	C	10g		
20029	41	B2	C	3.7g		
20030	41NW	B2	C	4.5g		
20031	41SE	B2	C	27.5g		2 sherds
20032	41SW	B2	C	7.7g		
20033	41	B2	C	8.9g		3 sherds
20034	41SW	B2	C	5g		
8759	41SW	B2	C	4.3g	0.28 cm	2 sherds
20037	55NE	B1	XCVI	6.3g		2 sherds
20039	59SW	B1	XCVI	21.6g		5 sherds

Anuradhapura: The Artefacts

20020	25NW	B1	XCVII	4.3g		
20021	25NW	B1	XCVII	6g		
20022	25NW	B1	XCVII	14.8g		3 sherds
20023	25NE	B1	XCVII	15g		5 sherds
20024	25NW	B1	XCVII	35g		3 sherds
20025	25NW	B1	XCVII	11g		
20026	25NE	B1	XCVII	3.7g		
20027	25NW	B1	XCVII	6.4g		
40207	25NE	B1	XCVII	5.4 g		
40210	25NE	B1	XCVII	1.8 g	0.31 cm	
975	25NW	B1	XCVII	6.8 g	0.48 cm	
40212	25NW	B1	XCVII	40.7 g	0.54 cm	
40212	25NW	B1	XCVII	8.4 g	0.33 cm	
40061	25NE	B1	XCVII	6.2 g	0.65 cm	
40065	25NW	B1	XCVII	2.8 g	0.37 cm	
2412	25NW	B1	XCVII	97.2g	0.29cm	
20049	82NW	B1	XCIX	6.7g	0.42cm	
40051	80SW	D	CVI	5.3 g	0.49 cm	
1959	334NE	D	XCV	12 g	0.48 cm	
5399	394SW	D	XCV	9.5 g	0.43 cm	
5636	251SW	D	XCV	1.8 g	0.4 cm	
8732	320NE	D	XCV	1.1 g	0.32 cm	
8749	204NW	D	XCV	2 g	0.43 cm	
25115	356NW	D	XCV	2.8 g	0.39 cm	
25175	356NW	D	XCV	1.4 g	0.43 cm	
2270	303SE	D	XCV	6.9 g	0.55 cm	
2393	373NW	D	XCV	5 g	0.59 cm	
2394	373NW	D	XCV	2.6 g	0.41 cm	
2398	373NW	D	XCV	2.2g	0.55cm	
5612	283NE	D	XCV	6.4 g	0.38 cm	
6070	296NE	D	XCV	3.8 g	0.56 cm	
6214	313SW	D	XCV	5.8g	0.47 cm	
6217	313SW	D	XCV	2.4g	0.4 cm	
6282	393SW	D	XCV	4.2g	0.38 cm	
6289	393SW	D	XCV	0.6g	0.26 cm	
6351	401NE	D	XCV	5.4g	0.31 cm	
8398	373NW	D	XCV	0.6 g	0.55 cm	
8577	107NW	D	XCV	15g	0.77 cm	
8578	107NW	D	XCV	24g	1 cm	
8659	359SW	D	XCV	2g	0.26 cm	
20035	42NW	D	XCV	7.4g		3 sherds
20036	50SW	D	XCV	1.6g		
20038	56	D	XCV	3.3g		
20042	72SE	D	XCV	1.5g		
20047	76NE	D	XCV	5g		
20048	80SW	D	XCV	16g		4 sherds
20051	86NE	D	XCV	7.5g		
20052	87SW	D	XCV	2.5g		
20053	88NE	D	XCV	2.5g		
20054	88NE	D	XCV	9g		
20055	88NE	D	XCV	5.2g		
20056	90NE	D	XCV	7.4g		2 sherds
20057	91NE	D	XCV	10.5g		
20058	97SE	D	XCV	3.2g	0.45 cm	
20059	97SE	D	XCV	6.7g		2 sherds
20060	97SE	D	XCV	2.8g		
20061	100NW	D	XCV	7.8g		3 sherds
20062	100NE	D	XCV	2.1g		
20063	100NE	D	XCV	9.3g		
20064	100NE	D	XCV	6g		4 sherds
20065	100NE	D	XCV	9.5g		2 sherds
20066	100NE	D	XCV	11.8g		3 sherds.
20067	103NW	D	XCV	14.7g		4 sherds
20068	103	D	XCV	2.6g		
20069	107NW	D	XCV	6.4g		2 sherds
20070	113NE	D	XCV	17.7g	0.4 cm	4 sherds
20071	113	D	XCV	2.3g		
20072	121NE	D	XCV	5.5g		
20073	122NE	D	XCV	6g		
20074	123SE	D	XCV	6g	0.5 cm	2 sherds
20075	123SE	D	XCV	9g		2 sherds
20077	134NW	D	XCV	3.6g		2 sherds
20078	134NW	D	XCV	9.5g		
20079	138NW	D	XCV	6.2g		
20080	139	D	XCV	5.9g		
20081	141NE	D	XCV	18.5g		3 sherds
20082	175	D	XCV	4.8g		2 sherds

Unglazed Ceramics

20083	190SW	D	XCV	1.1g		
20084	197SW	D	XCV	8.5g		2 sherds
20088	318	D	XCV	2.2g		
20089	320NE	D	XCV	3.3g		
20090	324NE	D	XCV	1.2g		
20091	335NE	D	XCV	2.1g		2 sherds
1482	107NW	D	XCV	3g		
1510	254SE	D	XCV	6.5g		
1512	251SW	D	XCV	7.5g		
1611	273SE	D	XCV	10.7g		
1687	256SE	D	XCV	6g		
1744	320NE	D	XCV	12.3g		
1777	320NE	D	XCV	5g		
1845	331SE	D	XCV	14.6g		
1873	324NE	D	XCV	11.3g		
1968	334NE	D	XCV	17g		
1979	261NW	D	XCV	2.7g		
1993	334NE	D	XCV	13.3g		
2210	332SE	D	XCV	9.7g		
2248	286NE	D	XCV	5g		
2249	301NE	D	XCV	10g		
40062	86NE	D	XCV	3.7 g	0.47 cm	
40063	133NE	D	XCV	3.8 g	0.54 cm	
40064	100NW	D	XCV	5.8 g	0.47 cm	
15203	600all	D	XCV	7.5 g	0.43 cm	
2266	254	D	XCV	3.5 g	0.46 cm	
2551	352NW	D	XCV	2.2 g	0.41 cm	
2527	334NE	D	XCV	0.7g	0.86 cm	
2557	359NW	D	XCV	8g	0.38 cm	
2568	359NW	D	XCV	0.8g	0.46 cm	
2661	292NE	D	XCV	2.6g	0.42 cm	
2677	356NE	D	XCV	2g	0.5 cm	
2712	356NW	D	XCV	14.6g	0.42 cm	
5223	320NE	D	XCV	3.9g	0.45 cm	
5224	320NE	D	XCV	1g	0.36 cm	
5631	354NE	D	XCV	3.4 g	0.40 cm	
5631	354NE	D	XCV	6.5 g	0.38 cm	
5631	354NE	D	XCV	1.9 g	0.32 cm	
5631	354NE	D	XCV	2.2 g	0.35 cm	
5637	296NE	D	XCV	1.2g	0.35 cm	
8150	359SW	D	XCV	4.7 g	0.43 cm	
8192	429SW	D	XCV	3.2g	0.37 cm	
8538	332SE	D	XCV	3g	0.4 cm	
8544	368NW	D	XCV	5g	0.7 cm	
8756	204NW	D	XCV	9g	0.84 cm	2 sherds
8757	204NW	D	XCV	4g	0.46 cm	
8760	320NE	D	XCV	2g	0.27 cm	
8802	324NE	D	XCV	8.5g	0.45 cm	
8805	261	D	XCV	11g	0.37 cm	2 sherds
8817	127SW	D	XCV	7.2g	0.55 cm	
15203	600SW	D	XCV	6.8 g	0.53 cm	
40205	90NE	D	XCV	4.8 g	0.35 cm	
40208	42NW	D	XCV	1.6 g	0.29 cm	
40213	141NE	D	XCV	2.3 g	0.38 cm	
2275	256	D	XCV	3g		
2388	368	D	XCV	1.8g		
5257	74SW	E	XCIV	5.3 g	0.33 cm	
20045	74SW	E	XCIV	10g		2 sherds
20046	74SW	E	XCIV	6.7g		
2706	365NW	F	XCII	5g	0.28 cm	
2716	365NW	F	XCII	3.5g	0.58 cm	
5295	388NW	F	XCII	7.4g	0.42 cm	
5475	365	F	XCII	3.8 g	0.27 cm	
6084	365NW	F	XCII	3.5 g	0.26 cm	
6007	367SW	F	XCII	5.6g	0.43 cm	
6010	367SW	F	XCII	3.9 g	0.46 cm	
6011	367SW	F	XCII	4.6g	0.32 cm	
6012	367SW	F	XCII	6.7g	0.35 cm	
6013	367SW	F	XCII	5.3 g	0.44 cm	
6020	364NE	F	XCII	6.8g	0.36 cm	
6028	367SW	F	XCII	2.9g	0.35 cm	
6029	367SW	F	XCII	3.6g	0.42 cm	
6031	365NW	F	XCII	1.5g	0.4 cm	
6039	364NE	F	XCII	6.6g	0.45 cm	
6052	367SW	F	XCII	1g	0.3 cm	
6059	367SW	F	XCII	3.2 g	0.41 cm	
6061	365NW	F	XCII	5.2g	0.36 cm	

Amuradhapura: The Artefacts

8570	365NW	F	XCII	6.2 g	0.46 cm	
8571	365	F	XCII	10.6g	0.41 cm	
8745	365NW	F	XCII	1.9 g	0.47 cm	
8548	73SW	F	XCII	5.7 g	0.42 cm	
8567	345SW	F	XCIII	3.2 g	0.39 cm	
2265	306SW	F	XCIII	3.1 g	0.46 cm	
5297	388NW	F	XCIII	6.1 g	0.39 cm	
5629	374NW	F	XCIII	13.5 g	0.43 cm	
5647	379SW	F	XCIII	4.6g	0.35 cm	
6032	306SW	F	XCIII	6.1g	0.42 cm	
6169	379NW	F	XCIII	1g	0.44 cm	
6216	355NE	F	XCIII	0.4g	0.31 cm	
6250	388NE	F	XCIII	14.5g	0.38 cm	
8032	194NW	F	XCIII	11g	0.5 cm	4 sherds
8550	73SW	F	XCIII	2g	0.54 cm	
8552	73SW	F	XCIII	5.6g	0.28 cm	
8554	264NW	F	XCIII	2g	0.2 cm	
8555	264NW	F	XCIII	2g	0.43 cm	
8579	305SW	F	XCIII	5.4g	0.6 cm	
8580	305SW	F	XCIII	13g	0.5 cm	
8587	304NE	F	XCIII	7.4g	0.74 cm	
8816	379SW	F	XCIII	5g	0.57 cm	
2852	355NE	F	XCIII	9.7 g	0.41 cm	
20043	73SW	F	XCIII	2.7g		2 sherds
20044	73	F	XCIII	3.4g		
20050	85NE	F	XCIII	1.4g		
20085	200SW	F	XCIII	3.2g		2 sherds
20086	200SW	F	XCIII	3.5g		
20087	210NW	F	XCIII	2.8g		
1955	73SE	F	XCIII	7.4g		
2144	306NE	F	XCIII	14g		
1484	200SW	F	XCIII	2.8g		
2259	73SE	F	XCIII	9.1g	0.6 cm	
2286	310SE	F	XCIII	7.3g	0.23 cm	
2389	374	F	XCIII	6.6g	0.2 cm	
2562	73SW	F	XCIII	3.6g	0.65 cm	
2582	355NE	F	XCIII	1.9g		
2667	73SE	F	XCIII	0.6g		
5331	405NW	G5	XC	4.8g	0.4 cm	
5334	417NW	G5	XCI	2g	0.36 cm	
5340	416NE	G5	XCI	1.6 g	0.35 cm	
5384	427SW	G5	XCI	5.5 g	0.34 cm	
5402	422NE	G5	XCI	3.1 g	0.45 cm	
5423	424NE	G5	XCI	5.9 g	0.33 cm	
5494	386NW	G5	XCI	7.7 g	0.43 cm	
5641	413SE	G5	XCI	5.6g	0.41 cm	
5642	386SW	G5	XCI	16.8g	0.37 cm	7 sherds
5643	386SW	G5	XCI	3.5g	0.23 cm	
5644	414SW	G5	XCI	14.2g	0.34 cm	6 sherds
6251	386NW	G5	XCI	2.3g	0.45 cm	
6264	385SE	G5	XCI	48g	0.63 cm	
6268	386NW	G5	XCI	11.8g	0.51 cm	
6280	385SE	G5	XCI	2.3g	0.34 cm	
6285	386NW	G5	XCI	5g	0.38 cm	
6364	404NE	G5	XCI	5.3g	0.4 cm	
6377	386NW	G5	XCI	5.4 g	0.45 cm	
6381	386NW	G5	XCI	2g	0.35 cm	
6382	386NW	G5	XCI	8.9g	0.36 cm	
6383	386NW	G5	XCI	10g	0.31 cm	
6384	386NW	G5	XCI	6.5 g	0.34 cm	
6395	406SW	G5	XCI	2.2g	0.18 cm	4 sherds
6426	399SE	G5	XCI	1g	0.23 cm	
6427	406SW	G5	XCI	8.8 g	0.31 cm	
6452	415SE	G5	XCI	12.1g	0.58 cm	2 sherds
6458	414SW	G5	XCI	0.6g	0.22 cm	
6465	415SE	G5	XCI	7.4g	0.45 cm	
6468	414SE	G5	XCI	1g	0.41 cm	
6469	406SW	G5	XCI	3.8 g	0.34 cm	
6472	415SE	G5	XCI	3.5g	0.26 cm	
6477	406SW	G5	XCI	2.2g	0.34 cm	
6479	416NE	G5	XCI	7.1 g	0.48 cm	
6486	414SW	G5	XCI	7.2g	0.43 cm	
6487	399NE	G5	XCI	2.5g	0.47 cm	
6489	399NE	G5	XCI	7 g	0.44 cm	
6502	417NW	G5	XCI	2.3 g	0.34 cm	
6569	425SW	G5	XCI	7.5 g	0.52 cm	
6659	416NE	G5	XCI	5.2 g	0.28 cm	

Unglazed Ceramics

6681	416NE	G5	XCI	3.5 g	0.38 cm	
6696	416NE	G5	XCI	5.2 g	0.44 cm	
8179	416NE	G5	XCI	9.5 g	0.45 cm	
8240	425SW	G5	XCI	6.5 g	0.39 cm	
3407	424NE	G5	XCI	3 g	0.44 cm	
6389	406SW	G5	XCI	5.3 g	0.42 cm	
6444	406SW	G5	XCI	4.2 g	0.44 cm	
5296	388NW	G5	XCI	5.2 g	0.35 cm	
5313	386NW	G5	XCI	1g	0.25 cm	
5407	424NE	G5	XCI	10.7 g	0.39 cm	
5407	424NE	G5	XCI	6.8 g	0.32 cm	
5418	416NE	G5	XCI	12.1 g	0.39 cm	
5816	420SW	G5	XCI	0.2g	0.2 cm	
6277	386NW	G5	XCI	2.4 g	0.24 cm	
6580	424SW	G5	XCI	4.4 g	0.48 cm	
8158	427	G5	XCI	7.7g	0.31 cm	5 sherds
8179	416NE	G5	XCI	1.8 g	0.36 cm	
8228	416	G5	XCI	4.2g	0.36 cm	4 sherds
8234	440SW	G5	XCI	1.3g	0.3 cm	2 sherds
8241	425	G5	XCI	1g	0.32 cm	
8246	440SW/SE	G5	XCI	2g	0.35 cm	
8573	386NW	G5	XCI	3.4g	0.28 cm	
8801	420SW	G5	XCI	8.2g	0.33 cm	
8803	399NE	G5	XCI	6g	0.55 cm	
8804	399NE/SE	G5	XCI	5g	0.43 cm	
8806	406SW	G5	XCI	11g	0.6g	
8811	431SW	G5	XCI	5.6g	0.6 cm	
8812	424NE	G5	XCI	36g	0.76 cm	5 sherds
8813	417NW	G5	XCI	13.4g	0.6 cm	
8814	399	G5	XCI	8.4g	0.47 cm	2 sherds
40211	416	G5	XCI	7.7 g	0.29 cm	
40211	416	G5	XCI	2.1 g	0.25 cm	
40211	416	G5	XCI	2.3 g	0.29 cm	
5287	376NW	G5	LXXXVI	7.9 g	0.33 cm	
5288	376NW	G5	LXXXVI	19.4g	0.8 cm	
5289	376NW	G5	LXXXVI	2.9 g	0.36 cm	
5291	376NW	G5	LXXXVI	6.1g	1 cm	
5292	376NW	G5	LXXXVI	1.6g	0.23 cm	3 sherds
6185	376NW	G5	LXXXVI	2.6g	0.35 cm	
6243	390SE	G5	LXXXVI	6.6g	0.31 cm	
6374	390SE	G5	LXXXVI	4.6g	0.31 cm	
6403	390SE	G5	LXXXVI	1.2g	0.28 cm	
6407	390SE	G5	LXXXVI	5.7g	0.3 cm	7 sherds
6409	390SE	G5	LXXXVI	0.6g	0.3 cm	
7226	506SW	G5	LXXXVI	1g	0.27 cm	
8141	390SW	G5	LXXXVI	1.3g	0.36 cm	
8142	390SW	G5	LXXXVI	0.5g	0.24 cm	
8189	457SW	G5	LXXXVI	10g	0.44 cm	3 sherds
8190	457SW	G5	LXXXVI	2g	0.23 cm	
5253	260NW	G5	LXXXVII	2.6g	0.33 cm	
6342	402NE	G5	LXXXVII	4.3 g	0.41 cm	
5323	402NE	G5	LXXXVII	3.1g	0.34 cm	
5378	445SW	G5	LXXXVII	2.3 g	0.71 cm	
6751	437NE	G5	LXXXVII	1.4 g	0.33 cm	
6796	458SW	G5	LXXXVII	4.2 g	0.42 cm	
8149	450NW	G5	LXXXVII	0.5g	0.21 cm	
8156	437SE	G5	LXXXVII	2g	0.31 cm	2 sherds
8159	448SW	G5	LXXXVII	4.1 g	0.31 cm	
8164	449	G5	LXXXVII	3g	0.4 cm	
8217	437NE/SE	G5	LXXXVII	14g	0.37 cm	5 sherds
8219	437NE/SE	G5	LXXXVII	2g	0.44 cm	
8227	445SW	G5	LXXXVII	3g	0.24 cm	
8231	441NE	G5	LXXXVII	1.2g	0.32 cm	
8236	442SE	G5	LXXXVII	4g	0.4 cm	2 sherds
8238	443SE	G5	LXXXVII	1.5g	0.31 cm	
8239	444NE	G5	LXXXVII	1.1 g	0.36 cm	
6758	445SW	G5	LXXXVII	3.8 g	0.36 cm	
8188	437SW	G5	LXXXVII	11.3 g	0.51 cm	
5417	409	G5	LXXXVIII	3.9 g	0.38 cm	
5325	409NW	G5	LXXXVIII	8.9g	0.45 cm	
5350	426NE	G5	LXXXVIII	4.2 g	0.29 cm	
5341	409NE	G5	LXXXVIII	3.8 g	0.34 cm	
5342	409NE	G5	LXXXVIII	7 g	0.33 cm	
5345	409SE	G5	LXXXVIII	2.2 g	0.33 cm	
5352	409NW	G5	LXXXVIII	4.2 g	0.37 cm	
5367	409NE	G5	LXXXVIII	5.2 g	0.35 cm	
5391	409NE	G5	LXXXVIII	3.2 g	0.37 cm	

Anuradhapura: The Artefacts

5394	409NE	G5	LXXXVIII	3.8 g	0.39 cm	
6448	409NW	G5	LXXXVIII	2.3g	0.35 cm	
6612	426NE	G5	LXXXVIII	2.5 g	0.35 cm	
6657	426	G5	LXXXVIII	5.8 g	0.42 cm	
6662	426	G5	LXXXVIII	7.7 g	0.32 cm	
6667	409NW	G5	LXXXVIII	5g	0.38 cm	
5415	409NW	G5	LXXXVIII	5.8 g	0.36 cm	
5417	409NW	G5	LXXXVIII	3.6 g	0.58 cm	
6592	409NE	G5	LXXXVIII	5.6 g	0.29 cm	
6593	409NE	G5	LXXXVIII	5.5 g	0.41 cm	
6609	426NE	G5	LXXXVIII	3.3 g	0.35 cm	
6616	426NE	G5	LXXXVIII	6.7 g	0.37 cm	
6637	426NE	G5	LXXXVIII	4.1 g	0.39 cm	
6642	426NE	G5	LXXXVIII	5.3 g	0.36 cm	
8187	437SW	G5	LXXXVIII	8g	0.38 cm	4 sherds
8534	409NW	G5	LXXXVIII	3g	0.4 cm	
8564	375NW	G5	LXXXVIII	1.6 g	0.32 cm	
8565	375NW	G5	LXXXVIII	3.4g	0.51 cm	
7060	495	G4	LXXX	4 g	0.29 cm	
8196	495SE	G4	LXXX	12g	0.38 cm	4 sherds
8270	495	G4	LXXX	0.3g	0.18 cm	
8271	495	G4	LXXX	1g	0.31 cm	
5654	470SW	G4	LXXXI	0.4g	0.21 cm	
5683	476NE	G4	LXXXI	3.2g	0.4 cm	
5734	487NE	G4	LXXXI	2g	0.35 cm	
6833	487NE	G4	LXXXI	3.5 g	0.31 cm	
6852	487NE	G4	LXXXI	11.6 g	0.39 cm	
6869	487NE	G4	LXXXI	3.8 g	0.43 cm	
6880	487NE	G4	LXXXI	4.7 g	0.39 cm	
6883	470SW	G4	LXXXI	1g	0.2 cm	
6885	487NE	G4	LXXXI	1.5 g	0.37 cm	
6886	470SW	G4	LXXXI	1g	0.25 cm	
6962	487NE	G4	LXXXI	9.2 g	0.39 cm	
6818	470SW	G4	LXXXI	2.3g	0.54 cm	8 sherds
6822	470SW	G4	LXXXI	7.7 g	0.33 cm	2 sherds
6828	476	G4	LXXXI	8.4g	0.33 cm	4 sherds
6844	470SW	G4	LXXXI	2.5g	0.42 cm	
6848	470SW	G4	LXXXI	4g	0.36 cm	
6879	487NE	G4	LXXXI	6.3 g	0.33 cm	
6888	470SW	G4	LXXXI	2g	0.32 cm	
6891	469SE	G4	LXXXI	18.5g	0.54 cm	2 sherds
6893	467NW	G4	LXXXI	0.3g	0.24 cm	
6894	470SW	G4	LXXXI	5.6g	0.3 cm	3 sherds
6910	487NE	G4	LXXXI	7g	0.27 cm	2 sherds
6914	487NE	G4	LXXXI	9.3g	0.31 cm	
6926	487NE	G4	LXXXI	10g	0.43 cm	2 sherds
6934	470SW	G4	LXXXI	2.2 g	0.34 cm	
6954	387NE	G4	LXXXI	9.5g	0.3 cm	2 sherds
8221	469SE	G4	LXXXI	12.9 g	0.57 cm	
6828	476	G4	LXXXI	3.6 g	0.32 cm	
6829	468NE	G4	LXXXI	4g	0.3 cm	
6853	470NW	G4	LXXXI	3.6 g	0.31 cm	
6855	470NW	G4	LXXXI	6g	0.37 cm	
6889	470SW	G4	LXXXI	1g	0.3 cm	
6911	487NE	G4	LXXXI	8.5g	0.41 cm	
6918	487NE	G4	LXXXI	3g	0.42 cm	
6921	469SE	G4	LXXXI	5.8 g	0.31 cm	
6931	487NE	G4	LXXXI	3g	0.4 cm	
6932	470SW	G4	LXXXI	10.3 g	0.30 cm	
6945	470SW	G4	LXXXI	3g	0.28 cm	2 sherds
6955	470SW	G4	LXXXI	5.6g	0.45 cm	
6964	487NE	G4	LXXXI	16g	0.35 cm	6 sherds
6972	470SW	G4	LXXXI	1g	0.25 cm	
6978	487NE	G4	LXXXI	6g	0.4 cm	
6980	487NE	G4	LXXXI	1g	0.31 cm	
6982	487NE	G4	LXXXI	3g	0.36 cm	
6984	470SW	G4	LXXXI	1g	0.24 cm	
6987	487NE	G4	LXXXI	7g	0.36 cm	
6995	469SE	G4	LXXXI	19g	0.45 cm	
7020	487NE	G4	LXXXI	19g	0.4 cm	3 sherds
7022	487NE	G4	LXXXI	2g	0.27 cm	2 sherds
8145	470SW	G4	LXXXI	4.7g	0.35 cm	3 sherds
8153	470	G4	LXXXI	2g	0.27 cm	
8154	469SE	G4	LXXXI	8g	0.32 cm	3 sherds
8155	487NE	G4	LXXXI	4.5 g	0.33 cm	
8172	470SW	G4	LXXXI	15.5g	0.34 cm	4 sherds
8176	490SW	G4	LXXXI	2g	0.38 cm	

Unglazed Ceramics

8191	487	G4	LXXXI	3.6g	0.41 cm	
8193	476NE	G4	LXXXI	1.4g	0.44 cm	
8222	487	G4	LXXXI	5.2g	0.31 cm	
8224	470	G4	LXXXI	3.4g	0.34 cm	
8230	470NW	G4	LXXXI	7.3g	0.43 cm	4 sherds
8233	470SW	G4	LXXXI	2.4g	0.35 cm	
8245	491SE	G4	LXXXI	1g	0.22 cm	
8248	487NE	G4	LXXXI	10g	0.31 cm	6 sherds
8268	502NE	G4	LXXXI	1.5g	0.22 cm	2 sherds
8269	506SW	G4	LXXXI	2g	0.34 cm	
8597	487NE	G4	LXXXI	4g	0.37 cm	
8598	470SW	G4	LXXXI	3g	0.34 cm	
8808	467NW	G4	LXXXI	6.7g	0.36 cm	
8809	469SE	G4	LXXXI	5g	0.42 cm	
10163	605	G4	LXXXIII	4.5 g	0.22 cm	
15396	605NE	G4	LXXXIII	8 g	0.37 cm	
15396	605NE	G4	LXXXIII	3.8 g	0.31 cm	
15627	605NE	G4	LXXXIII	1.2 g	0.41 cm	
15906	632NW	G4	LXXXIII	5.6 g	0.36 cm	
15822	632NW	G4	LXXXIII	7.8 g	0.42 cm	
15824	632NE	G4	LXXXIII	3.5 g	0.29 cm	
15906	632NW	G4	LXXXIII	22.9 g	0.42 cm	
15819	693NW	G4	LXXXIV	3.4 g	0.32 cm	
6941	490SW	G3	LXXV	2.7 g	0.38 cm	
6942	489NW	G3	LXXV	2.6g	0.33 cm	
6946	490SW	G3	LXXV	4g	0.41 cm	
7015	490SW	G3	LXXV	1.3g	0.26 cm	
7025	492SE	G3	LXXV	13g	0.33 cm	
7047	492SE	G3	LXXV	9g	0.33 cm	
7054	494NE	G3	LXXV	1.2g	0.24 cm	
7057	493SE	G3	LXXV	4g	0.3 cm	
7066	494NE	G3	LXXV	3.6g	0.32 cm	
7070	494NE	G3	LXXV	1.3g	0.28 cm	
7073	494NE	G3	LXXV	1.4g	0.27 cm	
7082	494NE	G3	LXXV	3.2g	0.21 cm	2 sherds
7085	494NE	G3	LXXV	4g	0.34 cm	
7086	490SW	G3	LXXV	8.3g	0.45 cm	
7095	494NE	G3	LXXV	10.6g	0.4 cm	
7096	494NE	G3	LXXV	2g	0.32 cm	2 sherds
7106	494NE	G3	LXXV	2.8 g	0.41 cm	
7108	494NE	G3	LXXV	1g	0.32 cm	
7109	494NE	G3	LXXV	1.6 g	0.32 cm	
7111	490SW	G3	LXXV	2.7 g	0.34 cm	
7117	494NE	G3	LXXV	3.3 g	0.32 cm	
7124	494NE	G3	LXXV	1g	0.25 cm	
7125	494NE	G3	LXXV	1.2g	0.33 cm	
7126	494NE	G3	LXXV	0.5g	0.4 cm	
7143	494NE	G3	LXXV	5g	0.44 cm	3 sherds
7152	494NE	G3	LXXV	2g	0.28 cm	
7158	490SW	G3	LXXV	2g	0.3 cm	
7160	492SE	G3	LXXV	6.8 g	0.43 cm	
7169	494NE	G3	LXXV	14g	0.32 cm	4 sherds
7177	494NE	G3	LXXV	3.5g	0.32 cm	2 sherds
7180	494NE	G3	LXXV	3.2g	0.33 cm	
7214	492SE	G3	LXXV	6.2 g	0.36 cm	
7228	494NE	G3	LXXV	3.7g	0.35 cm	
8013	494NE	G3	LXXV	3g	0.31 cm	
8117	494NE	G3	LXXV	3.6g	0.3 cm	4 sherds
8140	489NW	G3	LXXV	1.6g	0.38 cm	
8144	493SE	G3	LXXV	5g	0.25 cm	2 sherds
8157	490NW	G3	LXXV	3.6 g	0.4 cm	
8181	494NE	G3	LXXV	1.3g	0.57 cm	
8183	493SE	G3	LXXV	9g	0.34 cm	3 sherds
8184	492SE	G3	LXXV	4.2g	0.41 cm	3 sherds
8483	492SE	G3	LXXV	1.9 g	0.49 cm	
8223	494	G3	LXXV	1.3g	0.32 cm	
8225	494NE	G3	LXXV	2g	0.26 cm	2 sherds
8226	494NE	G3	LXXV	1g	0.23 cm	
8242	494NE	G3	LXXV	1.4 g	0.26 cm	
8243	494	G3	LXXV	1g	0.22 cm	
8481	490SW	G3	LXXV	0.3g	0.38 cm	
8484	490SW	G3	LXXV	3.3g	0.47 cm	
8487	489NW	G3	LXXV	3g	0.36 cm	2 sherds
1234	492SE	G3	LXXV	3.7 g	0.25 cm	
7079	489NW	G3	LXXV	11.4 g	0.32 cm	
7080	494NE	G3	LXXV	1g	0.31 cm	
7088	493SE	G3	LXXV	2.5g	0.3 cm	

Anuradhapura: The Artefacts

7093	494NE	G3	LXXV	5.7g	0.43 cm	2 sherds
7100	490SW	G3	LXXV	1g	0.37 cm	4 sherds
7105	490SW	G3	LXXV	2.5g	0.31 cm	
7116	494NE	G3	LXXV	9.4g	0.33 cm	
7130	494NE	G3	LXXV	20.8 g	0.47 cm	
7142	494NE	G3	LXXV	2.1 g	0.31 cm	
7173	492SE	G3	LXXV	5 g	0.38 cm	
7056	494NE	G3	LXXV	4.3 g	0.51 cm	
7127	494NE	G3	LXXV	1.5g	0.45 cm	
7133	490SW	G3	LXXV	6 g	0.38 cm	
7135	490SW	G3	LXXV	10g	0.34 cm	2 sherds
7139	494NE	G3	LXXV	13.2g	0.24 cm	5 sherds
7158	490SW	G3	LXXV	10g	0.33 cm	2 sherds
7205	493SE	G3	LXXV	1.4g	0.24 cm	
7209	490SW	G3	LXXV	1.5g	0.18 cm	
7234	492SE	G3	LXXV	3.7g	0.35 cm	
7232	492SE	G3	LXXV	18g	0.55 cm	
7237	492SE	G3	LXXV	3g	0.32 cm	
8084	490SW	G3	LXXV	0.2g	0.23 cm	
8086	494NE	G3	LXXV	2g	0.31 cm	
8157	490NW	G3	LXXV	1.6 g	0.4 cm	
8175	490SW	G3	LXXV	9.7 g	0.39 cm	
8198	493SE	G3	LXXV	1g	0.33 cm	
8199	493SE	G3	LXXV	4g	0.4 cm	5 sherds
8200	490SW	G3	LXXV	1g	0.23 cm	2 sherds
8216	490	G3	LXXV	6g	0.33 cm	2 sherds
8485	494NE	G3	LXXV	5.1 g	0.29 cm	
8515	494NE	G3	LXXV	7.4g	0.49 cm	
71971	494NE	G3	LXXV	2.6 g	0.42 cm	
8072	494NE	G3	LXXV	4.9 g	0.39 cm	
8800	493SE	G3	LXXV	2.5g	0.36 cm	
7078	499NE	G3	LXXVI	1.1 g	0.43 cm	
7213	511NE	G3	LXXVI	1g	0.14 cm	
7242	509SW	G3	LXXVI	2g	0.28 cm	
8274	496SE	G3	LXXVI	6.9 g	0.32 cm	
8272	511NE	G3	LXXVI	1.9 g	0.27 cm	
15894	633NW	G3	LXXVI	10 g	0.42 cm	
16712	503NW	G3	LXXVI	2.1 g	0.33 cm	
25174	509SW	G3	LXXVI	3.2 g	0.59 cm	
25178	507SW	G3	LXXVI	5.4 g	0.42 cm	
25182	505SW	G3	LXXVI	4.3 g	0.48 cm	
25184	502NE	G3	LXXVI	0.7 g	0.29 cm	
7229	511NE	G3	LXXVI	3.4 g	0.31 cm	
10040	606SW	G2	LXX	7.2 g	0.35 cm	
15515	607SE	G2	LXXI	5.3 g	0.35 cm	
10055	607SE	G2	LXXI	2.8 g	0.45 cm	
10001	601SE/SW	G2	LXXII	3.6 g	0.3 cm	
10016	601SE/SW	G2	LXXII	2.6 g	0.35 cm	
10021	601SW	G2	LXXII	15.6 g	0.48 cm	
15162	602NW	G2	LXXII	3.1 g	0.38 cm	
15380	602NE	G2	LXXII	5.9 g	0.31 cm	
15399	602NE	G2	LXXII	1.2 g	0.36 cm	
15520	601SE/SW	G2	LXXII	7.8 g	0.32 cm	
10056	601SE	G2	LXXII	5.2 g	0.45 cm	
15299	602NW	G2	LXXII	3.4 g	0.54 cm	
15898	601SE/SW	G2	LXXII	5.2 g	0.39 cm	
15353	602NE	G2	LXXII	5.1 g	0.35 cm	
15628	602NE	G2	LXXII	9.1 g	0.26 cm	
15812	615NW	G2	LXVIII	7.8 g	0.46 cm	
10105	615NE	G2	LXVIII	3.8 g	0.45 cm	
10165	615NW	G2	LXVIII	2.8 g	0.3 cm	
15269	615NE	G2	LXVIII	1.4 g	0.36 cm	
15393	615NE	G2	LXVIII	2.5 g	0.32 cm	
15513	615NE	G2	LXVIII	5.8 g	0.33 cm	
15523	615NW	G2	LXVIII	1 g	0.33 cm	
15895	635NW	G2	LXXIII	16 g	0.39 cm	
15810	559*	*	*	3.2 g	0.3 cm	
15826	615NE	G2	LXVIII	5.6 g	0.45 cm	
15904	615NW	G2	LXVIII	4.8 g	0.44 cm	
15908	615NE	G2	LXVIII	3.9 g	0.29 cm	
15908	615NE	G2	LXVIII	3.2 g	0.42 cm	
15910	635NW	G2	LXXIII	6.1 g	0.42 cm	
15914	635NW	G2	LXXIII	4.9 g	0.41 cm	
15916	615NW	G2	LXVIII	2 g	0.41 cm	
15928	615NW	G2	LXVIII	5.3 g	0.32 cm	
15895	635NW	G2	LXXIII	2.5 g	0.40 cm	
15907	615	G2	LXVIII	10.6 g	0.37 cm	

Unglazed Ceramics

15830	634NE	G2	LXIX	1.8 g	0.43 cm
10208	663NW	G1	LXVI	16.9 g	0.51 cm
15828	663NE	G1	LXVI	3.3 g	0.37 cm
16389	715SE	H1	LXII	0.9 g	0.34 cm
16395	715SE	H1	LXII	3.4 g	0.46 cm
16029	726NE	H1	LXIV	12.9 g	0.56 cm
5834	670SW	H1	LXIV	0.8 g	0.31 cm
16388	701NE	H1	LXIV	2.1 g	0.56 cm
15820	698NE	H1	LXIV	10.4 g	0.48 cm
15825	697NE	H1	LXIV	8.9 g	0.36 cm
16252	707SE	I8	LIV	3.1 g	0.32 cm
16279	714SE	I8	LIV	2.3 g	0.33 cm
16292	714SE	I8	LIV	3.3 g	0.38 cm
16296	714SW	I8	LIV	2.3 g	0.32 cm
16540	880SE	I5	XXXIII	1.6 g	0.31 cm

6.2.3 Arikamedu Type 10

Type 10 is a fine, wheel-made, slipped ceramic shaped as cups or bowls with a black slip inside and pink outside (Wheeler 1946: 59).

It has a flat base and tapering profile, and is ornamented on the interior of the sides with a row of stamped medallions between two bands of multiple incised grooves, with a further band of concentric grooves on the inside of the base (*ibid.*).

The medallions depict fish, birds or peacocks (*ibid.*). Begley renamed this ware Form 5 after her excavations at Arikamedu (Begley 1996: 256). This ware has a similar geographical distribution to Rouletted ware at Sri Lankan sites such as the Citadel of Anuradhapura (Coningham 1991: 62) and Jetavanaramaya (Ratnayake 1984: 62); as well as Chandraketurah (West Bengal) (Begley 1996), Karaikadu (Tamil Nadu) (*ibid.*) and Dharanikota (Andhra Pradesh) (Ghosh 1989) in India. Sembiran in Bali, Indonesia, has also yielded small quantities of Type 10 (Ardika and Bellwood 1991). Because of its association with Rouletted ware, Type 10 has been dated to between 200 BC and AD 200 (Deraniyagala 1990). Thin-section analysis of type 10, Rouletted ware and grey ware sherds from trench ASW2, Anuradhapura, has demonstrated mineralogical and textural similarities (Krishnan and Coningham 1997: 934). This may indicate exploitation from a single geological source or multiple sources with a similar geological composition (*ibid.*: 935). With the radiocarbon dates of trench ASW2, it is now possible to accurately date Type 10 from 200 cal. BC to AD 1100. Trench ASW2 at Anuradhapura has yielded 45 sherds of Type 10. It first appears in period G2, phase LXXIII containing 5 sherds, and peaks in period G5, phase XCI with a total of 24 sherds. This period dates from 200 cal. BC to AD 130 cal. Its presence declines until period B4, phase CXI, which dates from AD 600 to 1100. As only 45 sherds represent this ware, it provides the opportunity to study a whole ceramic category temporally at one site. This allows for examination of any changes, such as manufacture or trade resulting in the sudden appearance or disappearance of certain forms. A number of sherds that join together have been found from different structural periods. One bowl has eight joining sherds, six of which come from the same phase (LXXXVII, period G5); another sherd also comes from period G5, but from phase XCI, while the final sherd has been yielded from phase XCV,

period D. Another bowl contains three sherds, two of which are from period G5, phase XCI, and the third from period G2, phase LXVII. These examples suggest that there was some form of re-use of the sherds once the bowls had broken and demonstrates the movement of material within an archaeological site. A new classification is required that would allow for the established features of Type 10 decoration yet be flexible enough to accommodate new types. This would aid future studies to identify the presence or absence of various components from a range of sites. As a result, it would provide evidence of possible trade links, cultural identity markers or centres of production. The following system has been used to ease analysis of the catalogue of Type 10 from ASW2.

6.2.3.1 Classification of features

- **Type 10A** = Bowl with grooved decoration but *no* 'stamped impression'. Similar to Wheeler's type 10'k'.
- **Type 10B** = Bowl with 'grooved' and 'stamped' decoration. Unknown type.
- **Type 10Bi** = This is the classic, more natural portrayal with a well-proportioned body, large round-ended beak and large eye represented by a pellet. The bird is often seen carrying some sort of foliage in its beak.
- **Type 10Bii** = More stylistic portrayal with an elongated angular body and downward-pointing curving beak, claw-like feet and no visible eye.
- **Type 10Biii** = Very stylistic portrayal similar to Wheeler type 10'a'.

Bowls with additional frames, dividers or 'V' impressions:

- **Type 10B+D** = As type 10B but with the addition of a divider between each stamp.
- **Type 10B+F** = As type 10B but with the addition of a complete frame around the stamp.
- **Type 10B+V** = As type 10B but with the addition of a 'V' stamp impression.

So, for example, a sherd with a 'stamp impression' of a distinctive natural portrayal, 'divider' and 'V' and with the 'bird' facing right can be written thus:

Classification: Type 10Bi+D+V (right).

In this way, the classification can be updated and added to as new components and types are discovered, while still being relevant to forms already in existence.

'Stamp impression' refers to the actual design formed within the frame of the die. The die is then pressed on to the surface of the leather-hard pot before firing and the addition of a coloured slip. The 'stamps' from published examples have so far only produced positive impressions (i.e. which stand out above the main body surface). The term 'medallion' refers to the shape of the die into which the stamp impression was formed. These are usually oval or rectangular in shape, although often not visible. The internal 'grooves' are grouped together to form 'bands' of multiple grooves ranging from two to six grooves per band. Two bands of grooves are usually found above the upper half of the vessel wall and another band of grooves within the base of the vessel. Often, bands or faint grooves are found on the external surfaces of a vessel. These are, however, the result of the vessel being wheel-turned.

The following catalogue has been grouped depending upon the type of sherd (i.e. rim, body) and the presence/absence of stamp impressions. All sherds have evidence for internal bands of grooves, a key feature in identifying otherwise plain sherds.

6.2.3.2 Rim sherds with stamp impressions

Special find no: 5140 **Classification:** Type 10Bi (right)
Context: 15NW **Period:** B4 **Phase:** CXI
Diameter: 14 cm
Weight: 11.67 g **x-section:** 0.57 cm
Description: Rim sherd of coarse fabric with single band of grooves, 3mm wide. Three grooves in band. There is faint evidence of a stamp impression of a bird, possibly a peacock due to an apparent crest on the bird's head. This sherd appears not to have been slipped. Inside, it is orange in colour, while outside the surface is rough and grey/brown in colour. The fabric is reddish/orange in colour and is fine-grained.
[Fig. 6.4]

Special find no: 6710 **Classification:** Type 10Bi+D+V (right)
Context: 416NE **Period:** G5 **Phase:** XCI
Diameter: 14 cm
Weight: 10.29 g **x-section:** 0.35 cm
Description: Rim sherd with three bands of grooves on its internal surface. The uppermost, 5.75mm wide, and the central band, 5.75mm wide, have four grooves each. The bottom band has three grooves with what appears to be the remainder of the fourth groove where the sherd has broken. The visible stamp impression between the uppermost and central band of grooves is no doubt of the 'peacock' form as a faint impression of a crest can be seen. The peacock faces right and is the large eye type with pellet. The bird seems to be holding what appears to be a bunch of fruit, possibly grapes, in its beak. There is also faint impressions of a divider between stamps. This sherd is also one of very few that exhibit a second row of stamp impressions below the central band of grooves. This stamp is in the form of a 'V' symbol. Sherds with the 'V' stamp are also known from Chandraketugarh and Alagankulam. The slip is only to be found on the internal surface of the sherd and is very dark blue/grey in colour with areas of lighter grey blue where the surface of the slip has rubbed away. Externally, the sherd is unslipped and ranges from a buff colour to a deep red with areas of deep purple especially near to the rim. The fabric is of a medium dark grey material, which is very fine-grained. This sherd joins sf 6520, described below.
[Plate 1.2; Fig. 6.4]

Special find no: 6381 **Classification:** Type 10B (right)
Context: 386NW **Period:** G5 **Phase:** XCI
Diameter: unattainable
Weight: 2.72 g **x-section:** 0.42 cm
Description: Rim sherd with one band of grooves, 6.5mm wide. The band

has five grooves. The top half of a stamp impression is visible and is probably of a bird form. As only a small amount of the stamp remains, it is difficult to say exactly what type it is. The slip is only to be found on the internal surface of this sherd and is blue/grey in colour. Externally, the sherd ranges from a buff colour to grey near the rim. The fabric is of a medium dark grey material, which is very fine-grained.

Special find no: 5324 **Classification:** Type 10B (right)
Context: 403NE **Period:** G5 **Phase:** XCI
Diameter: 15 cm
Weight: 5.9g **x-section:** 0.48 cm
Description: Rim sherd with one band of grooves, 7.5mm wide and consisting of six grooves. A very small part of a stamp impression is visible and it is very faint. No details of the type can be given. The sherd is slipped in grey on the internal surface only. It is unslipped, but brown in colour externally. The rim is slightly outward curving. The fabric is of medium-fine-grained material, light grey in colour.
[Fig. 6.4]

Special find no: 6520 **Classification:** Type 10Bi+D+V (right)
Context: 477NW **Period:** G5 **Phase:** LXXXVII
Diameter: 14 cm
Weight: 2.89 g **x-section:** 0.36 cm
Description: Rim sherd with one band of grooves 7mm wide and partial remains of the central band of grooves. The uppermost band has five grooves and parts of two grooves can be seen in the central band. The stamp impression between the uppermost and central band of grooves is no doubt of the peacock form as the faint impression of a crest can be seen. The peacock faces right and has a large eye with pellet. The bird also appears to be holding some form of fruit, perhaps grapes, in its beak. There is also evidence for a divider on this sherd. The slip is only to be found on the internal surface of this sherd and is blue/grey in colour. Externally, the sherd is buff to deep red in colour with areas of deep purple especially near to the rim. The fabric is of a medium dark grey material, which is very fine-grained. This sherd fits together with sf 6710.
[Plate 6.1; Fig. 6.4]

Special find no: 6859 **Classification:** Type 10Bi+D (right)
Context: 487NE **Period:** G4 **Phase:** LXXXI
Diameter: 14 cm
Weight: 4.31 g **x-section:** 0.45 cm
Description: Rim sherd with one band of grooves, 9.25mm wide, containing six grooves. Below this is the upper third of a stamp impression of a bird, probably a peacock, facing right within an oval medallion. There is evidence for part of a divider just below the beak of the peacock. The sherd is slipped on the internal surface only and is dark grey in colour. Externally, the sherd is unslipped and is orange to tan in colour. The fabric is pale grey in colour and is very fine-grained.
[Fig. 6.4]

Special find no: 7051 **Classification:** Type 10Bii+F (right)
Context: 494NE **Period:** G3 **Phase:** LXXV
Diameter: 13 cm
Weight: 5.15 g **x-section:** 0.35 cm
Description: This rim sherd has two bands of grooves on its internal surface. The uppermost band, 6.5mm wide, has four grooves. The central band has three grooves visible but is incomplete as the sherd is broken here. The stamp impression on this sherd is interesting as it has a complete border, 21 x 13mm, around an angular, elongated bird facing right. This stamp is remarkably similar to another sherd published by Begley, from Chandraketugarh (Begley 1996: 261). It is also clear, as in the illustration in Begley, that the stamp impression overlaps the bands of grooves. The sherd is slipped inside and out with a very dark blue/grey slip. The fabric is medium dark grey in colour and is very fine-grained. Joins Sf 7126.
[Plate 6.2; Fig. 6.5]

Special find no: 15514 **Classification:** Type 10Bi+D/F (right)
Context: 615NE/NW **Period:** G2 **Phase:** LXVIII
Diameter: unknown
Weight: 1.87 g **x-section:** 0.25 cm
Description: Rim fragment with two bands of grooves and a single stamp impression. The uppermost band, 4mm wide, has three grooves, the central band is only partially preserved. The stamp impression is of a bird facing right within a rectangular medallion, 15mm wide x 10.5mm high. The bird appears to be angular in shape. The stamp impression is quite

faint. The sherd is slipped on the internal and external surfaces, glossy black inside and dark matt grey outside. Some banding is visible on the external surface. The fabric is fine-grained and grey in colour.

[Plate 6.2]

Special find no: 10014
Context: 602NW
Diameter: 12 cm
Weight: 5.81 g
Description: Rim sherd with two bands of grooves. The uppermost band is 3.5mm wide and has three faint grooves. The central band, at least 4.2mm wide, has four grooves. However, the total number of grooves and the width of the band is unclear as the sherd is broken here. The stamp impression is of a bird facing right. One full stamp is visible plus half of another. No crest is visible, therefore the bird appears not to be a peacock. The bird stamp is of the type with the large eye and central pellet. The body of the bird is angular and elongated. There is a diagonal divider between the main stamp and the remains of a second to the right. There are also several other faint marks which may or may not be part of the stamp design. The shape of the medallion is unclear. On the surface of the sherd, the slip is only on the internal surface, which is highly degraded. It is light blue/grey in colour with areas of dark grey/blue where the slip has not weathered. On the external surface, the sherd is unslipped and ranges from a buff colour to a deep red with areas of deep purple especially near to the rim. Some external banding is visible. The pottery fabric is medium dark grey in colour and is very fine-grained.
[Plate 6.3; Fig. 6.5]

Special find no: 40100(Y)
Context: 638NW
Diameter: 11.8cm
Weight: 9.9 g
Description: Rim sherd with one band of grooves. The band, 4.8mm wide, has five grooves. Below this is the faint trace of two stamp impressions of birds, probably peacocks facing right. The birds are of the large eye type, but this does not have a pellet in the centre of the eye. No further details are visible. The sherd has only been slipped on the internal surface and is light blue/grey in colour with areas of dark grey/blue where the slip has not worn away. Externally, the sherd is unslipped and ranges from a buff colour to a deep red with areas of deep purple, especially near to the rim. Some external banding is visible. The fabric is medium dark grey and very fine-grained.
[Fig. 6.5]

6.2.3.3 Body sherds with stamp impressions

Special find no: 5635
(unknown)
Context: 364NE
Weight: 1.3 g
Description: Body sherd with the remains of the bottom of a rectangular border. A metallic grey/black slip is only to be found on the internal surface. The external surface is dark brown to black in colour. The fabric is of medium-fine-grained material.

Special find no: 5643
Context: 386SW
Weight: 3.34 g
Description: Body sherd with a central band of five grooves, 8mm wide. Above this band, there is a stamp of a peacock with large eye and pellet. A clear crest cannot be seen, so a positive identification of a peacock cannot be made. Two slip colours are to be found on the internal surface of this sherd, making it a unique example. Above the central band of grooves, the slip is very dark blue/black in colour. Below the band, a buff coloured slip has been used. No other sherd with such a variation in slip has been published. Externally, the ceramic is orange/brown in colour and is unslipped. There is some clear banding visible on the external surface, the result of the vessel being wheel turned. The fabric is orange in colour and is medium-fine-grained.

Special find no: 6280
Context: 385SE
Weight: 9.35 g
Description: Body sherd with no bands of grooves. Stamp of the 'dolphin' form in very high relief. The medallion is oval in shape. The closest published parallel to this stamp can be found in Wheeler (1946: 57, fig.

17 Type 10a). This is the dolphin type, which has clearly been wrongly identified by several authors. In comparison with other sherds of Type 10, the body is extremely thick. The slip is found on the internal and external surfaces of the sherd. It is black internally; externally the slip ranges in colour from grey to black. The fabric is of a medium dark grey material, which is very fine-grained.

Special find no: 5734
Context: 487NE
Weight: 2.1 g
Description: Body sherd with the remains of the bottom left-hand corner of a rectangular stamp impression of a bird, very angular in style, similar to sf 7051. This stamp also has a complete frame around the bird, again similar to sf 7051. A metallic grey/black slip is only to be found on the internal surface. The fabric is of medium-fine-grained material.

Special find no: 7126
Context: 494NE
Weight: 0.6 g
Description: Body sherd with the remains of the top right-hand corner of a rectangular stamp impression of a bird. Visible is a section of divider to the right with the head and clear eye of a 'bird' impression. A single groove is visible above. Internal slip is dark grey/black in colour as is the external surfaces. Joins sf 7051. The fabric is of medium-fine-grained material.

6.2.3.4 Rim sherds without stamp impressions

Special find no: 15204
Context: 600
Diameter: 9 cm
Weight: 3.54 g
Description: Outward-splaying rim sherd with two bands of grooves. The upper band has five grooves and is 6mm wide. The middle band has five faint grooves and is 5.5mm wide. The sherd has been slipped both internally and externally in matt black. Externally, the surface is rough due to adhering material. The fabric appears to be fine-grained and grey in colour.
[Fig. 6.5]

Special find no: 2651
Context: 356NE
Diameter: 16.5 cm
Weight: 8.90 g
Description: Rim sherd. Two bands of grooves visible. Upper band, 4mm wide, has four grooves. The middle band, 4mm wide, also has four grooves. The sherd is slipped internally in glossy black. Externally it is unslipped and is orange to dark grey in colour. There are clear surface grooves, the result of being wheel turned. The fabric is medium-fine-grained and is orange to dark orange grey in colour. One of several sherds which belong to the same vessel (see sfs 8219, 6774, 6764, 6750, 6748, 6364, 5377).

Special find no: 1485
Context: 113NE
Diameter: 12 cm
Weight: 2.10 g
Description: Rim sherd with partial remains of band of grooves. Three grooves are visible, but the original width of the band is unknown. The sherd has been slipped in black internally but is unslipped outside and is grey/cream in colour. The fabric appears to be fine-grained and grey in colour but no fresh break is visible so the true nature of the fabric is unclear.

Special find no: 6722
Context: 427SW
Diameter: 8 cm
Weight: 2.68 g
Description: Rim sherd with two bands of grooves visible. Upper band, 6mm wide, has three grooves and the middle band has three visible grooves, but the original width of the band is unknown. Slipped internally in metallic dark grey/black. External surface unslipped. Dark blue/grey to light grey in colour. Medium-fine-grained grey brown fabric. Joins sf 8241.

Special find no: 6582
Context: 424NW
Diameter: 10 cm

Weight: 2.77 g x-section: 0.37 cm
Description: Rim sherd. Top band, 3mm wide, of two grooves. Slipped internally in dark grey. Externally unslipped, black to orange in colour. Very fine-grained grey fabric.
[Fig. 6.6]

Special find no: N **Classification:** Type 10A
Context: 615NW **Period:** G2 **Phase:** LXXVIII
Diameter: 9 cm
Weight: 3.6 g **x-section:** 0.37 cm
Description: Rim sherd with two bands of grooves visible. Band nearest rim, 3mm wide, has two grooves while the central band has two grooves but its original width is unknown. The sherd is slipped inside but not outside. Inside, it is dark grey/blue in colour. Outside it is dark grey/blue to light orange in colour. The fabric is fine-grained and light grey in colour. Joins sfs 6573 and 6574.

Special find no: 15926 **Classification:** Type 10A
Context: 615 **Period:** G2 **Phase:** LXVIII
Diameter: 12 cm
Weight: 2.52 g **x-section:** 0.355 cm
Description: Rim sherd with two bands of grooves visible. The upper band, 5mm wide, has three grooves while central band has three grooves but its original width is unknown. Internally, the sherd has been slipped and is metallic light grey in colour. Externally, the sherd is unslipped and is orange to dark grey/blue in colour. The fabric is grey in colour and fine-grained. Slightly lipped rim.
[Fig. 6.6]

Special find no: 6573 **Classification:** Type 10A
Context: 424NW **Period:** G5 **Phase:** XCI
Diameter: 9 cm
Weight: 4.96 g **x-section:** 0.35 cm
Description: Rim sherd. Top band 3mm wide of two grooves visible. Slipped internally in dark grey. Externally, unslipped, black to orange in colour. Very fine-grained grey fabric. Joins sf 6574 and 'N'.
[Fig. 6.6]

Special find no: 6364 **Classification:** Type 10A
Context: 404NE **Period:** G5 **Phase:** XCI
Diameter: 16.5 cm
Weight: 6.7g **x-section:** 0.47 cm
Description: Rim sherd with one band, 4mm wide, of four grooves. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 8219, 6774, 6764, 6750, 6748, 5377, 2651. All join to make 1/3 the circumference of the bowl.

Special find no: 15885 **Classification:** Type 10A
Context: 605NW **Period:** G4 **Phase:** LXXXIII
Diameter: 8 cm
Weight: 2.46 g **x-section:** 0.30 cm
Description: Rim sherd with one band of six grooves, 9mm wide. The sherd is slipped on the internal surface only and is dark grey to black in colour. Externally, it is unslipped and ranges from light grey to deep tan in colour. The pottery fabric is of a medium dark grey material, which is fine-grained.
[Fig. 6.6]

Special find no: 5606 **Classification:** Type 10A
Context: 369 **Period:** G5 **Phase:** XCI
Diameter: 10.5cm
Weight: 1.98 g **x-section:** 0.38 cm
Description: Rim sherd, one band 5.5mm wide of three grooves. Slipped internally but not externally. Internal surface dark to light grey matt slip. Very fine-grained dark grey fabric.

Special find no: 8152 **Classification:** Type 10A
Context: 450SW **Period:** G5 **Phase:** LXXXVII
Diameter: unattainable
Weight: 0.75 g **x-section:** 0.28 cm
Description: Rim sherd with one band, 7mm wide, with four grooves. Slipped inside in metallic dark grey. Unslipped outside. Dark blue/grey to cream/brown in colour. Fine-grained grey fabric.

Special find no: 6774 **Classification:** Type 10A
Context: 437NE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5 cm
Weight: 8.98 g **x-section:** 0.46 cm
Description: Rim sherd with two bands of grooves. Five grooves in upper band, 4mm wide. Middle bands original width unknown but three grooves visible. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 8219, 6764, 6750, 6748, 6734, 5377, 2651. All join to make 1/3 the circumference of the bowl. Two other sherds (sf 6750) come from the same bowl.

Special find no: 6764 **Classification:** Type 10A
Context: 437NE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5 cm
Weight: 9.95 g **x-section:** 0.47 cm
Description: Rim sherd with one band, 4mm wide, of four grooves. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 8219, 6774, 6750, 6748, 6364, 5377, 2651. All join to make 1/3 the circumference of the bowl.
[Fig. 6.6]

Special find no: 6748 **Classification:** Type 10A
Context: 437NE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5 cm
Weight: 8.62 g **x-section:** 0.51 cm
Description: Rim sherd with one band, 4mm wide, of four grooves. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 8219, 6774, 6764, 6750, 6364, 5377, 2651. All join to make 1/3 the circumference of the bowl.

Special find no: 5377 **Classification:** Type 10A
Context: 437NE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5cm
Weight: 2.3 g **x-section:** 0.51 cm
Description: Rim sherd with one band, 4mm wide, of four grooves. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 8219, 6774, 6764, 6750, 6748, 6364, 2651. All join to make 1/3 the circumference of the bowl.

Special find no: 8186 **Classification:** Type 10A
Context: 469SE **Period:** G4 **Phase:** LXXXI
Diameter: 7.5cm
Weight: 2.58 g **x-section:** 0.33 cm
Description: This sherd has two bands of grooves, the uppermost having five or six grooves, 8.5mm wide, the central band has five or six grooves but its original width is unknown. The sherd is slipped only on the internal side with a dark blue/grey slip. Externally, the sherd ranges in colour from buff/tan through to dark blue/grey. The pottery fabric is of a medium dark grey material, which is very fine-grained. This example was the subject of microstructural analysis alongside Rouletted ware and associated pottery from Anuradhapura. Part of the sherd (c. 1 cm) was removed for use in this analysis (see Krishnan and Coningham 1997 for further details).
[Fig. 6.7]

6.2.3.5 Base sherds without stamp impressions

Special find no: 6898 **Classification:** Type 10A
Context: 487NE **Period:** G4 **Phase:** LXXXI
Diameter: unknown, base
Weight: 14.38 g **x-section:** 0.45 cm
Description: Base sherd with two bands of grooves. The band of grooves in the base has a total of five grooves, its original width is unknown. The central band has six grooves and is 10.5mm wide. The sherd is slipped dark grey/black inside but is unslipped outside. Outside is dark brown to light orange in colour. The fabric is fine-grained and light grey in colour.

Special find no: 7116 **Classification:** Type 10A
Context: 494NE **Period:** G3 **Phase:** LXXV
Diameter: unknown
Weight: 9.02 g **x-section:** 0.41 cm
Description: Base sherd with one band of grooves, 8mm wide, with five grooves. The sherd is slipped on the inside in black/dark grey but is

unslipped externally and is grey/blue to light orange in colour. The fabric is very fine-grained and is light grey in colour.
[Fig. 6.7]

Special find no: 7040 **Classification:** Type 10A
Context: 489NW **Period:** G3 **Phase:** LXXV
Diameter: unknown, base = c. 5cm
Weight: 2.38 g **x-section:** 0.34 cm
Description: Base sherd from a very fine quality small bowl. Part of a band of three grooves is visible. The internal surface is slipped in very glossy black slip. Externally, the sherd is unslipped and ranges from glossy blue/black to light orange in colour. The fabric is very fine-grained and grey in colour.
[Fig. 6.7]

Special find no: 6007 **Classification:** Type 10A
Context: 367SW **Period:** F **Phase:** XCII
Diameter: unknown, base = c. 6cm
Weight: 7.63 g **x-section:** 0.56 cm
Description: Base sherd with partial section of base band of grooves. Only two grooves visible. The total width of the band is unknown. Internally, the sherd is slipped with glossy black slip. Externally, the sherd is unslipped and is orange to dark tan in colour. The fabric is light grey/orange and fine-grained.
[Fig. 6.7]

Special find no: 5490 **Classification:** Type 10A
Context: 616NE **Period:** G5 **Phase:** LXX
Diameter: unknown, base = 8.5cm
Weight: 4.71 g **x-section:** 0.53 cm
Description: Base sherd with single band of unknown width with five grooves. Slipped internally but not externally. Internal surface is dark blue/black; external surface is orange to dark tan in colour. Coarse fabric with many inclusions. Grey in colour.

6.2.3.6 Body sherds without stamp impressions

Special find no: 8241 **Classification:** Type 10A
Context: 425 **Period:** G5 **Phase:** XCI
Diameter: unattainable - body sherd
Weight: 0.95 g **x-section:** 0.26 cm
Description: Small body sherd with seven faint grooves within a band 0.96cm wide. Internal slip is metallic grey in colour, externally, the slip ranges from a bright orange tan to deep black. Joins sf 6722. Fine-grained grey fabric.

Special find no: 6574 **Classification:** Type 10A
Context: 424NW **Period:** G5 **Phase:** XCI
Diameter: see Sf 6573
Weight: 1.25 g **x-section:** 0.21 cm
Description: Body sherd with one band, 3mm wide of three grooves. Slipped internally in black. External surface unslipped, dark grey to tan/grey in colour. Very fine-grained grey fabric. Joins sfs 6573 and 'N'.

6.2.4 Arikamedu Type 18

Type 18 is characterized by "fine grey or pinkish grey bowls of thin and well-burnt fabric. It is distinguished by a beaded rim, carinated waist and foot-ring, and has a grooved shoulder" (Wheeler 1946: 60). Wheeler first identified Type 18 at Arikamedu and dated it to the first centuries BC and AD (ibid.). Kantarodai has also yielded a small number of Type 18 sherds and is known as "Black partial slip on red-to-black Hellenistic, carinated and grooved" (Prickett-Fernando 1990: 81). It has been suggested that this ware was inspired by Greek pottery as a result of Graeco-Indian trade relations (ibid.). The Anuradhapura Citadel excavations have also revealed the presence of Type 18 (ibid.). Trench ASW2 has yielded 30 sherds with the earliest in period I8, phase LIV, and the latest in period D, phase XCV, a date ranging from 360 cal. BC to AD 1100. The highest concentration is in period G2,

Special find no: 5816 **Classification:** Type 10A
Context: 420SW **Period:** G5 **Phase:** XCI
Diameter: unattainable
Weight: 0.6 g **x-section:** 0.17 cm
Description: Fine quality sherd from small bowl. Body sherd with partial sections of two bands of grooves. Metallic dark grey slip inside. External surface also appears to be slipped. Fine-grained dark grey fabric.

Special find no: 6889 **Classification:** Type 10A
Context: 470SW **Period:** G4 **Phase:** LXXXI
Diameter: unattainable
Weight: 0.76 g **x-section:** 0.32 cm
Description: Glossy body sherd with one band of six grooves, 6mm wide. The sherd is very glossy and almost metallic lead colour on the internal surface. Externally it is unslipped but very glossy and light red-brown in colour. The fabric is fine-grained and light grey in colour.

Special find no: 5291 **Classification:** Type 10A
Context: 376NW **Period:** G5 **Phase:** LXXXVI
Diameter: unattainable body sherd
Weight: 1.04 g **x-section:** 0.37 cm
Description: Body sherd with central band, 5mm wide with four grooves. Slipped inside, light grey in colour. Unslipped externally, orange tan in colour with surface striations due to being wheel-turned. Medium-fine-grained, light cream/tan in colour.

Special find no: 5393 **Classification:** Type 10A
Context: 426NE **Period:** G5 **Phase:**
LXXXVIII
Diameter: unknown
Weight: 0.7 g **x-section:** 0.36 cm
Description: Small body sherd from small bowl. One band, 4mm wide, of four grooves. Metallic dark grey/black internally. Also slipped externally. Medium-fine-grained, light cream/tan in colour.

Special find no: 6750 **Classification:** Type 10A
Context: 439NE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5 cm
Weight: 20.56 g **x-section:** 0.51 cm
Description: Two body sherds which join with one band, 4mm wide, with four grooves visible. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - sfs 8219, 6774, 6764, 6748, 6364, 5377, 2651. All join to make 1/3 the circumference of the bowl.

Special find no: 8219 **Classification:** Type 10A
Context: 437NE / SE **Period:** G5 **Phase:** LXXXVII
Diameter: 16.5 cm
Weight: 1.67 g **x-section:** 0.41 cm
Description: Body sherd with one band, 4mm wide, of four grooves visible. Slipped inside with matt black. Externally, unslipped with surface striations visible. Fine-grained dark grey fabric. Part of single bowl consisting of five special finds - numbers 6774, 6764, 6750, 6748, 6364, 5377, 2651. All join to make 1/3 the circumference of the bowl.

with seven sherds dating from c. 200 BC to AD 130. These radiocarbon dates have allowed for a longer chronology of Type 18 at Anuradhapura, and possibly at other sites such as Arikamedu. The diameter of most forms of Type 18 from Arikamedu is roughly 12 cm throughout (Wheeler 1946: 58). A larger form (18d) has a diameter of 22 cm and comes from the post-Arretine period of the Northern sector (ibid.: 60). Subsequent excavations by Begley *et al.* have yielded a diameter range of 12 to 19 cm for all variants. This is about the same for the Anuradhapura sherds, apart from a few thicker sherds that probably have a wider diameter. These three thicker sherds come from periods I8 (sf 10282), G2 (sf 15304) and G3 (sf 8085) and have affinities with the larger Arikamedu samples. The average diameter size is 11.6 cm and demonstrates no changes over time. The thicker sherds do tend to have a slightly larger

diameter at around 15 cm. This evidence is comparable with the Type 18 sherds found at Arikamedu with an average of about 12 cm (Wheeler 1946: 60). No bases have been identified, although comparison with Wheeler's Type 18 bases has revealed a similar form in sf 6994. This is in

the fine black-slipped ware category and is also recognized as form 58/A/A/2 in Deraniyagala's system and as Begley's 4.308 (Begley 1996: 267). It is from period G4, phase LXXXI, which is the same phase as seven of the rim sherds.

Rim sherds:

Special find no: 5223 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 2g
Diameter: 10 cm
Description: Rim sherd with black slip.
[Fig. 6.8]

Special find no: 5224 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 2g
Diameter: 9 cm
Description: Small rim sherd, very fine and black slip.
[Fig. 6.8]

Special find no: 8141 **Period: G5**
Context: 390SW **Phase: LXXXVI**
Weight: 1.5g
Diameter: 10 cm
Description: Fine body sherd with grey interior and orange exterior.
[Plate 1.2]

Special find no: 6816 **Period: G4**
Context: 470SW **Phase: LXXXI**
Weight: 3g
Diameter: 12 cm
Description: Rim sherd with black interior and red/orange exterior.
[Fig. 6.8]

Special find no: 6834 **Period: G4**
Context: 487NE **Phase: LXXXI**
Weight: 6g
Diameter: 11 cm
Description: Rim sherd with black/grey slip.
[Fig. 6.8]

Special find no: 25177 **Period: G4**
Context: 469 SW **Phase: LXXXI**
Weight: 2g
Diameter: 12 cm
Description: Rim sherd with black interior and red/orange exterior.

Special find no: 8174 **Period: G4**
Context: 470SW **Phase: LXXXI**
Weight: 1g
Diameter: 10 cm
Description: Small rim sherd with red interior and black exterior.

Special find no: 6849 **Period: G4**
Context: 470SW **Phase: LXXXI**
Weight: 1g
Diameter: 10 cm
Description: Small, fine rim sherd with orange rim and the rest black-slipped.

Special find no: 8171 **Period: G4**
Context: 467 **Phase: LXXXI**
Weight: 1g
Diameter: 10 cm
Description: Small rim sherd with black and red slip.

Special find no: 15921 **Period: G4**
Context: 693NW **Phase: LXXXIV**
Weight: 2g
Diameter: unattainable
Description: Small, fine rim sherd with orange exterior and grey interior. One big groove on exterior.

Special find no: 8085 **Period: G3**
Context: 492 **Phase: LXXV**
Weight: 3.5g
Diameter: 15 cm
Description: Thick rim sherd with orange exterior and grey/orange interior.

Special find no: 7114 **Period: G3**
Context: 502 **Phase: LXXXVI**
Weight: 1.5g
Diameter: 11 cm
Description: Fine, small rim sherd with orange exterior and grey interior. Two grooves on exterior.
[Fig. 6.8]

Special find no: 10138 **Period: G2**
Context: 635NW **Phase: LXXIII**
Weight: 3g
Diameter: 12 cm
Description: Rim sherd with metallic black slip.

Special find no: 15326 **Period: G2**
Context: 616NW **Phase: LXX**
Weight: 6.5g
Diameter: 12 cm
Description: 3 rim sherds of possibly the same vessel, 2 definitely are. Red exterior and black/grey interior, grey core. Incisions on exterior.

Special find no: 10007 **Period: G2**
Context: 601 **Phase: LXXII**
Weight: 2.5g
Diameter: 13 cm
Description: Rim sherd with black slip.

Special find no: 15304 **Period: G2**
Context: 601SE/SW **Phase: LXXII**
Weight: 2.5g
Diameter: 14 cm
Description: Thick rim sherd with grey interior and orange interior.

Special find no: 15626 **Period: G2**
Context: 605NE **Phase: LXXXIII**
Weight: 6g
Diameter: 12 cm
Description: Rim sherd with black interior and red/orange exterior. External grooves.

Special find no: 15392 **Period: G2**
Context: 605NE **Phase: LXXXIII**
Weight: 8g
Diameter: 11 cm
Description: Rim sherd with orange/brown interior and black

Special find no: 10282 **Period: 18**
Context: 707SE **Phase: LIV**
Weight: 2.5g

Diameter: 15 cm

Description: Thick rim sherd with black interior and orange/grey exterior.

Body sherds:

Special find no: 8538 **Period: D**
Context: 332SE **Phase: XCV**
Weight: 3g
Description: Fine body sherd with black interior and orange exterior. Grooves on exterior.

Special find no: 7082 **Period: G3**
Context: 494NE **Phase: LXXV**
Weight: 4g
Description: Fine body sherd with grey interior and orange exterior, external grooves.
[Plate 1.2]

Special find no: 8243 **Period: G3**
Context: 494 **Phase: LXXV**
Weight: 1.5g
Description: Small fine body sherd. Orange on both sides. Grooves on exterior.

Special find no: 10135 **Period: G3**
Context: 632NW **Phase: LXXXIII**
Weight: 4g
Description: Fine body sherd, orange with external grooves.

Special find no: 15388 **Period: G2**
Context: 601SE/SW **Phase: LXXXII**
Weight: 3g
Description: Fine body sherd with grey interior and orange exterior. External grooves.

Special find no: 15831 **Period: G2**
Context: 634NE **Phase: LXIX**
Weight: 1g
Description: Small fine body sherd with orange/grey exterior and orange interior. Grooves on exterior.

Special find no: 5395 **Period: G5**
Context: 425 **Phase: XCI**
Weight: 3g
Description: Fine body sherd, black and grooves on exterior.

Special find no: 8226 **Period: G3**
Context: 494NE **Phase: LXXV**
Weight: 1g
Description: Small fine body sherd with black interior and grey/orange exterior. Grooves on exterior.

Special find no: 7209 **Period: G3**
Context: 490SW **Phase: LXXV**
Weight: 1.5g
Description: Fine body sherd, orange and external grooves.

Special find no: 15896 **Period: G2**
Context: 635NW **Phase: LXXXIII**
Weight: 3g
Description: Fine body sherd with black interior and grey/orange exterior. Grooves on exterior.

Special find no: 10178 **Period: G2**
Context: 635NW **Phase: LXXXIII**
Weight: 3g
Description: Fine body sherd with grey interior and grey/orange exterior. Few exterior grooves.

6.2.5 Northern Black Polished ware

This is a fine-grained, highly polished ware and is normally black-coloured as a result of firing conditions (Ghosh and Panigrahi 1946: 55). Scientific analysis has suggested that the black glaze was produced by magnetite due to its magnetic nature and electron microscopic studies (Hegde 1978: 149). As the name suggests, Northern Black Polished ware (NBPW) is thought to have originated in North India and dates from 350 to 250 BC (Prickett-Fernando 1990: 81). It has a wide distribution extending from Somnath in the west to Bangara in the east, Taxila in the north and Amaravati in the south (Hegde 1978: 159). Sherds have been recovered from the Anuradhapura Citadel excavations

and also in trench ASW2. The latter contains one sherd of NBPW from period 17, phase XXXV, which dates from 360 to 190 cal. BC. This is interesting in terms of trade relations with northern India and supports other evidence of trade networks, such as lapis lazuli from Afghanistan and carnelian from Gujarat found in periods I and J (Coningham 1995b: 64). It is similar to Deraniyagala's bowl form 38/A/A/1, although a more accurate representation of NBPW form can be found in *Ancient India* 1 (Ghosh and Panigrahi 1946: 56).

Special find no: 16539 **Period: 17**
Context: 837NW **Phase: XXXV**
Weight: 3g
Description: Rim sherd of very fine and black-slipped ware. Simple rounded rim shape and grey core. NBPW.
[Plate 1.2]

6.2.6 Unslipped and/or pale body coloured

This ware is defined by its fine and thinly potted texture, which has an orange/grey core. Ranging from periods I4 to

D (360 cal. BC–AD 1100), these six body sherds are all distinguished by their pale body colour.

Special find no: 40111
Context: 72
Weight: 5g

Period: D
Phase: XCV

Special find no: 5253
Context: 260NE
Weight: 5g

Period: G5
Phase: LXXXVII

Special find no: 10528
Context: 977NW
Weight: 3g

Period: I4
Phase: XXVIII

Special find no: 8569
Context: 359SW
Weight: 2g

Period: D
Phase: XCV

Special find no: 15924
Context: 607
Weight: 5g

Period: G2
Phase: LXXI

Special find no: 40032
Context: 961
Weight: 3g

Period: I4
Phase: XXX

6.2.7 Additional fine wares

This category represents sherds that differ from the usual forms present at Anuradhapura. They are often too small and/or undiagnostic and are thus additional wares. Some of these sherds may have Hellenistic influence, although they

are not imported. A total of 42 sherds constitute this group, which includes 23 body sherds, 11 rims and 7 bases. They appear from period D to I8, which is dated from 360 cal. BC to AD 1100.

Rim sherds:

Special find no: 1512
Context: 251SW
Weight: 8g

Period: D
Phase: XCV

Description: Fine rim sherd with grey slip on both sides. Grey core and concentric grooves on top of the rim. [Fig. 6.9]

Special find no: 5138
Context: 76NE
Weight: 19.5g

Period: D
Phase: XCV

Description: Medium-coarse rim sherd, orange, no slip. [Fig. 6.9]

Special find no: 6014
Context: 367SW
Weight: 10.5g

Period: F
Phase: XCII

Description: Everted rim sherd, orange/red slip on both sides. Similar to Type 18, medium-grained.

Special find no: 6285
Context: 386NW
Weight: 3g

Period: G5
Phase: XCI

Description: Unknown rim sherd.

Special find no: 6989
Context: 487NE
Weight: 11g

Period: G4
Phase: LXXXI

Description: Orange, unslipped everted rim. 2 grooves on exterior below rim. Form 6/E/A/1, fig. 4.79 (Begley 1996: 159).

Special find no: 8194
Context: 476NE
Weight: 10g

Period: G3
Phase: LXXXI

Description: Fine rim sherd with red/orange slip and grey core.

Special find no: 15905
Context: 615NW
Weight: 5g

Period: G2
Phase: LXVIII

Description: Rim sherd with grey interior and orange/brown slip on exterior. A few grooved lines on exterior of rim.

Base sherds:

Special find no: 5313
Context: 386NW
Weight: 3g

Period: G5
Phase: XCI

Description: Base sherd. Metallic, grey core. Joins sf 6894.

Special find no: 8539
Context: 416
Weight: 3g

Period: G5
Phase: XCI

Description: Small base sherd, grey metallic slip on exterior and grey core. Cf. fig. 4.306 (Begley 1996).

Special find no: 16028
Context: 714SW
Weight: 5g

Period: I8
Phase: LIV

Description: Fine, orange base. Cf. 4.306 (Begley 1996: 265). [Fig. 6.9]

Body sherds:

Special find no: 40113
Context: 42NW
Weight: 3g

Period: D
Phase: XCV

Description: Body sherd.

Special find no: 6523
Context: 416NE
Weight: 5g

Period: G5
Phase: XCI

Description: 2 body sherds of fine ware. Traces of orange/brown slip, grey core.

Special find no: 6415
Context: 406SW
Weight: 5g

Period: G5
Phase: XCI

Description: Brown slipped body sherd.

Special find no: 8224
Context: 470
Weight: 3g

Period: G5
Phase: LXXXI

Unglazed Ceramics

Special find no: 6883 **Period: G5**
Context: 470SW **Phase: LXXXI**
Weight: 1g
Description: Very small orange sherd. Fine, undiagnostic.

Special find no: 15892 **Period: G2**
Context: 635 **Phase: LXXXIII**
Weight: 7g
Description: Orange fine ware with paddle-stamped impression.
Also found at Arikamedu and Alagankulam, fig. 4.236
(Begley 1996: 216-224)

Special find no: 15771 **Period: G1**
Context: 663NW **Phase: LXVI**
Weight: 13g
Description: Medium-grained body sherd. Orange slip on exterior
Possibly black on interior, beige/cream core. 3 sherds joined.

Special find no: 15770 **Period: H**
Context: 670 **Phase: LXIV**
Weight: 1.5g
Description: Orange/brown fine body sherd, undiagnostic.

Special find no: 6894 **Period: G5**
Context: 470SE **Phase: LXXXI**
Weight: 5g
Description: Metallic, grey core. Joins sf 6734.

Special find no: 10145 **Period: G2**
Context: 635NW **Phase: LXXXIII**
Weight: 3g
Description: 2 sherds, possibly from the same vessel. Fine,
with orange slip on exterior and grey on interior. Concentric
grooves on exterior of both, metallic ring.

Special find no: 15774 **Period: G1**
Context: 663NW **Phase: LXVI**
Weight: 1g
Description: Fine body sherd with orange slip and grey core.

6.2.8 Fine black-slipped ware

These 26 sherds are all fine and black-slipped and have been split into rim and base and body sherds. They possibly originate from the Hellenistic world, or their manufacture may have been influenced by Greek methods. They appear in periods H1 to D, which dates from 200 cal. BC to AD

1100. The majority (nine sherds) are from period G2, dating from 200 cal. BC to AD 130 cal. Some of the sherds represent bowls and their forms are described below in the base section. They range from period D to G2 with the highest concentration in G2.

Rims:

Special find no: 5287 **Period: G5**
Context: 376NW **Phase: LXXXVI**
Weight: 5g
Description: unclear form.

Special find no: 6879 **Period: G4**
Context: 487NE **Phase: LXXXI**
Weight: 6g
Description: unclear form

Special find no: 7000 **Period: G4**
Context: 487NE **Phase: LXXXI**
Weight: 2.5g
Description: Fine black-slipped ware. Rim sherd with grey core.
[Fig. 6.9]

Special find no: 8181 **Period: G3**
Context: 494NE **Phase: LXXV**
Weight: 1g
Description: Unclear form.

Special find no: 15327 **Period: G2**
Context: 615 **Phase: LXVIII**
Weight: 8.5g
Description: 3 fine sherds with black everted rim. Form 6/E/A/1.
Cf. Type 93 (Wheeler 1946).

Special find no: 6687 **Period: G5**
Context: 427SE **Phase: XCI**
Weight: 2.5g
Description: unclear form

Special find no: 7003 **Period: G4**
Context: 469SE **Phase: LXXXI**
Weight: 4g
Description: Fine rim sherd of a bowl. Black slip on interior
and orange/grey slip on exterior. 4 lines of concentric grooves on
exterior. Metallic ring and grey core. Cf. Type 13 (Wheeler
1946: 60).
[Fig. 6.9]

Special find no: 8087 **Period: G3**
Context: 494NE **Phase: LXXV**
Weight: 1.5g
Description: Rim sherd, black-slipped.
[Fig. 6.9]

Special find no: 7206 **Period: G3**
Context: 493SE **Phase: LXXV**
Weight: 3.5g
Description: Fine rim with black interior and orange exterior.
Cf. 4.301 (Begley 1996),
Type 14a (Wheeler 1946).

Special find no: 16293 **Period: H1**
Context: 698NE **Phase: LXIV**
Weight: 3g
Description: Unclear form.

Bases:

Special find no: 40100 **Period: D**
Context: 107NW **Phase: XCV**
Weight: 2g
Description: Small fineware bowl. Base. Form 62/F/B/1

Special find no: 6994 **Period: G4**
Context: 469SE **Phase: LXXXI**
Weight: 15.5g
Description: Fine base with foot, black slip, grey core.
Begley's 4.308 (1996: 267). Possible Type 18.
[Plate 6.3; Fig. 6.9]

Special find no: 15398 **Period: G3**
Context: 630NW **Phase: LXXVI**
Weight: 11g
Description: Fine base sherd with black slip on interior and grey core.
[Fig. 6.9]

Special find no: 10113 **Period: G2**
Context: 605 **Phase: LXXXIII**
Weight: 27.7g
Description: Base of fine ceramic bowl.

Special find no: 10027 **Period: G2**
Context: 605NW **Phase: LXXXIII**
Weight: 17g
Description: Fine black-slipped base, grey core.
Cf fig. 4.308 (Begley 1996)

Special find no: 15395 **Period: G2**
Context: 605NE **Phase: LXXXIII**
Weight: 10g
Description: As sf 10027, connecting base sherd.

Body sherds:

Special find no: 6734 **Period: G5**
Context: 390SE **Phase: LXXXVI**
Weight: 5g
Description: Body sherd. Metallic, grey core. concentric

Special find no: 6664 **Period: G5**
Context: 426NE **Phase: LXXXVIII**
Weight: 2g
Description: Unclear form

Special find no: 8013 **Period: G3**
Context: 494NE **Phase: LXXV**
Weight: 3g
Description: Unclear form.

Special find no: 15200 **Period: G2**
Context: 602NW **Phase: LXXII**
Weight: 3g
Description: Black-slipped body sherd.
Simple rim sherd.

Special find no: 15884 **Period: G2**
Context: 605NW **Phase: LXXXIII**
Weight: 1g
Description: Black-slipped with external decoration.

Special find no: 8156 **Period: G5**
Context: 437 **Phase: LXXXVII**
Weight: 1.5g
Description: Small, fine black-slipped ware with 2 grooves on one side. Grey core, body sherd.

Special find no: 8144 **Period: G3**
Context: 493SE **Phase: LXXV**
Weight: 3g
Description: Black-slipped body sherd with a stamped decoration?

Special find no: 15352 **Period: G2**
Context: 602NE **Phase: LXXII**
Weight: 0.5g
Description: Very fine and small black-slipped body sherd. 2 grooves on exterior, grey core, undiagnostic.

Special find no: 15900 **Period: G2**
Context: 605NW **Phase: LXXXIII**
Weight: 5g
Description: Black-slipped with decoration on both sides.

Special find no: 40112 **Period: G2**
Context: 605NW **Phase: LXXXIII**
Weight: 3g
Description: 2 body sherds, metallic black.

6.2.9 Red Polished ware

Red Polished ware is thought to have originated in Gujarat and Maharashtra, northern India, in the first to third/fourth centuries AD (Prickett-Fernando 1990: 81). It has been found at the Anuradhapura Citadel, Jetavana and Abhayagiri excavations and Mantai in northern Sri Lanka (ibid.). Tamluk in West Bengal has yielded Red Polished ware in association with Rouletted ware, thus enabling a relative date of the first two centuries AD (Allchin 1995: 142) and perhaps earlier. Indeed, 92 sherds have been found from trench ASW2, stretching from period A1 to G3,

a date range of c. 200 cal. BC–AD 1100, confirming its position as a later ceramic. Period D contains the highest concentration with 58 sherds. However, there is not a gradual build-up or a slow decline of the amount of sherds, which supports the theory that it was an imported item. In terms of diameter, the rim sherds have an average of 9 cm, which does not change over time. The spout sherds have an average of 4 cm in periods F and D and then become smaller in period B with 2 cm.

Rim sherds:

Special find no: 30020 **Period: A1**
Context: 4SE **Phase: CXIV**
Weight: 10g
Diameter: ?
Description: Rim sherd.

Special find no: 30021 **Period: B4**
Context: 15NE **Phase: CXI**
Weight: 14.7g
Diameter: ?
Description: Rim sherd.

Special find no: 8506 **Period: D**
Context: 334NE **Phase: XCV**
Weight: 4g

Special find no: 8780 **Period: A1**
Context: 4SW **Phase: CXIV**
Weight: 41g
Diameter: ?
Description: Rim sherd.

Special find no: 30022 **Period: D**
Context: 107NW **Phase: XCV**
Weight: 85g
Diameter: ?
Description: 4 rim sherds.

Special find no: 8582 **Period: D**
Context: 269SE **Phase: XCV**
Weight: 7g

Unglazed Ceramics

Diameter: 6 cm
Description: Rim. Form 22/A/A/2

Special find no: 30023 **Period: D**
Context: 87NW **Phase: XCV**
Weight: 8g
Diameter: 12 cm
Description: Rim. 20/A/B/1

Special find no: 30025 **Period: D**
Context: 158NW **Phase: XCV**
Weight: 34.6g
Diameter: ?
Description: Rim sherd.

Special find no: 1752 **Period: D**
Context: 272SE **Phase: XCV**
Weight: 1.1g
Diameter: ?
Description: Rim sherd. Form 37/A/A/1

Special find no: 30027 **Period: D**
Context: 107NW **Phase: XCV**
Weight: 24.5g
Diameter: 10 cm
Description: Rim sherd. Form 20/A/A/2

Special find no: 2200 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 1.8g
Diameter: 6 cm
Description: Rim sherd. Form 20/A/B/1

Special find no: 1949 **Period: D**
Context: 334NE **Phase: XCV**
Weight: 7.7g
Diameter: 8 cm
Description: Rim sherd. Form 22/A/A/2

Special find no: 30029 **Period: D**
Context: 158NW **Phase: XCV**
Weight: 5.2g
Diameter: 6 cm
Description: Rim sherd. Form 22/A/A/2

Special find no: 6989 **Period: G3**
Context: 487NE **Phase: LXXXI**
Weight: 11.6g
Diameter: ?
Description: Rim sherd.

Base sherds:

Special find no: 8780 **Period: A1**
Context: 4NW **Phase: CXIV**
Weight: 127g
Description: Base sherd. Form 20/A/A/1

Spout sherds:

Special find no: 30030 **Period: A1**
Context: 4SW **Phase: CXIV**
Weight: 128g
Diameter: ?
Description: Spout sherd.

Special find no: 30031 **Period: B4**
Context: 11 **Phase: CX**
Weight: 72.3g
Diameter: ?
Description: Spout sherd.

Special find no: 30033 **Period: B3**
Context: 9NW **Phase: CVI**
Weight: 16g
Diameter: 2 cm
Description: Spout sherd. Form 24/A/A/1

Diameter: ?
Description: Rim. Form 30/A/A/2

Special find no: 30024 **Period: D**
Context: 123SE **Phase: XCV**
Weight: 3.7g
Diameter: 4 cm
Description: Rim sherd. Form 22/A/A/2

Special find no: 30026 **Period: D**
Context: 158NW **Phase: XCV**
Weight: 106.6g
Diameter: ?
Description: 2 rim sherds.

Special find no: 1843 **Period: D**
Context: 301NE **Phase: XCV**
Weight: 9.2g
Diameter: 8 cm
Description: Rim sherd. Form 22/A/A/2

Special find no: 30028 **Period: D**
Context: 95NW **Phase: XCV**
Weight: 59.4g
Diameter: 20 cm
Description: Rim sherd.

Special find no: 1589 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 54.6g
Diameter: 9 cm
Description: Rim sherd. Form 20/A/A/1

Special find no: 2504 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 42.6g
Diameter: 12 cm
Description: Rim sherd. Form 23/B/A/1

Special find no: 8503 **Period: F**
Context: 73SE **Phase: XCIII**
Weight: 5g
Diameter: 10 cm
Description: Rim. Form 40/A/A/1

Special find no: 1868 **Period: D**
Context: 325NE **Phase: XCV**
Weight: 7.4g
Description: Base sherd.

Special find no: 8778 **Period: B4**
Context: 11 **Phase: CX**
Weight: 0.4g
Diameter: ?
Description: Spout sherd.

Special find no: 30032 **Period: B4**
Context: 11 SW **Phase: CX**
Weight: 9.6g
Diameter: 2 cm
Description: Spout sherd. Form 24/A/A/1

Special find no: 30034 **Period: B2**
Context: 41SW **Phase: C**
Weight: 13g
Diameter: 2 cm
Description: Spout sherd. Form 24/B/B/1

Special find no: 30035
Context: 82NW
Weight: 15.3g
Diameter: 3 cm
Description: Spout sherd. Form 26/A/A/1

Period: B1
Phase: XCIX

Special find no: 1833
Context: 320NE
Weight: 42.5g
Diameter: 4 cm
Description: Spout sherd. Form 26/A/A/1
[Plate 1.2]

Period: D
Phase: XCV

Special find no: 1709
Context: 307SE
Weight: 31g
Diameter: 4 cm
Description: Spout sherd. Form 18/A/A/1

Period: F
Phase: XCIII

Others:

Special find no: 5141
Context: 9
Weight: 3.1g
Description: Possible handle.

Period: B3
Phase: CVI

Special find no: 30036
Context: 100NE
Weight: 60.2g
Diameter: 5 cm
Description: Spout sherd. Form 24/B/A/2

Period: D
Phase: XCV

Special find no: 1738
Context: 320NE
Weight: 31.6g
Diameter: 4 cm
Description: Spout sherd. Form 24/B/B/1

Period: D
Phase: XCV

Special find no: 5299
Context: 313SW
Weight: 3.8g
Description: Possible handle.

Period: D
Phase: XCV

Body sherds:

Special find no: 30000
Context: 4SW
Weight: 40.6g
Description: Body sherd.

Period: A1
Phase: CXIV

Special find no: 118
Context: 27SW
Weight: 8.2g
Description: Body sherd.

Period: B2
Phase: C

Special find no: 30003
Context: 143
Weight: 3.2g
Description: Body sherd.

Period: B2
Phase: CI

Special find no: 30005
Context: 51NW
Weight: 9.4g
Description: Body sherd.

Period: B1
Phase: XCIX

Special find no: 30006
Context: 138NW
Weight: 8g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 2112
Context: 272SE
Weight: 1g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1534
Context: 252SW
Weight: 1g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1834
Context: 320NE
Weight: 4g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1743
Context: 320NE
Weight: 6g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30009
Context: 158NW
Weight: 12g

Period: D
Phase: XCV

Special find no: 30001
Context: 11
Weight: 3.4g
Description: Body sherd.

Period: B4
Phase: CX

Special find no: 30002
Context: 41NW
Weight: 15.6g
Description: Body sherd.

Period: B2
Phase: C

Special find no: 30004
Context: 14NE
Weight: 17g
Description: 2 body sherds.

Period: B2
Phase: CII

Special find no: 1537
Context: 254SE
Weight: 18g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30007
Context: 87SW
Weight: 1.3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1519
Context: 254SE
Weight: 4g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1522
Context: 251SW
Weight: 20.5g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 2140
Context: 285
Weight: 0.4g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30008
Context: 100NE
Weight: 1.4g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30010
Context: 107SW
Weight: 24g

Period: D
Phase: XCV

Unglazed Ceramics

Description: 2 body sherds.

Special find no: 1816
Context: 325NE
Weight: 2g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30012
Context: 100NE
Weight: 2.3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30014
Context: 151SE
Weight: 1.3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1985
Context: 334NE
Weight: 5g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30016
Context: 87SW
Weight: 3.6g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 8505
Context: 316NE
Weight: 3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30018
Context: 87NW
Weight: 17g
Description: 2 body sherds.

Period: D
Phase: XCV

Special find no: 8508
Context: 320NE
Weight: 5g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30019
Context: 74SW
Weight: 4.2g
Description: Body sherd.

Period: E
Phase: XCIV

Special find no: 25187
Context: 51NW
Weight: 0.7g
Description: Body sherd.

Period: F
Phase: XCII

Special find no: 643
Context: 180NW
Weight: 1g
Description: Body sherd.

Period: F
Phase: XCIII

Special find no: 8579
Context: 305SW
Weight: 0.6g
Description: Body sherd.

Period: F
Phase: XCIII

Special find no: 6603
Context: 424NW
Weight: 5g
Description: Body sherd.

Period: G5
Phase: XCI

Special find no: 6754
Context: 448SW
Weight: 4g
Description: Body sherd.

Period: G5
Phase: LXXXVII

Special find no: 8286
Context: 502NE
Weight: 2g
Description: Body sherd.

Period: G3
Phase: LXXVI

Description: 2 body sherds.

Special find no: 30011
Context: 111SW
Weight: 6g
Description: 3 body sherds.

Period: D
Phase: XCV

Special find no: 30013
Context: 124NW
Weight: 8g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30015
Context: 158NW
Weight: 2.3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 1985
Context: 334NE
Weight: 1g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 30017
Context: 91NE
Weight: 1.2g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 8501
Context: 334NE
Weight: 3g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 8537
Context: 76NE
Weight: 5g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 25190
Context: 359
Weight: 0.4g
Description: Body sherd.

Period: D
Phase: XCV

Special find no: 2991
Context: 365NW
Weight: 2.6g
Description: Body sherd.

Period: F
Phase: XCII

Special find no: 6172
Context: 379SW
Weight: 11.6g
Description: Body sherd.

Period: F
Phase: XCIII

Special find no: 8509
Context: 309NW
Weight: 2g
Description: Body sherd.

Period: F
Phase: XCIII

Special find no: 8576
Context: 374NW
Weight: 3g
Description: Body sherd.

Period: F
Phase: XCIII

Special find no: 8572
Context: 404NW
Weight: 0.2g
Description: Body sherd.

Period: G5
Phase: XCI

Special find no: 6622
Context: 426NE
Weight: 11.5g
Description: Body sherd. Form 16/C/A(i)

Period: G5
Phase: LXXXVIII

6.2.10 Omphalos ware

This ware has been identified from base sherds, presumably of bowls, with a boss or protrusion in the centre. They are fine, slipped and are coloured black, grey or orange as a result of the firing conditions. Begley (1996: 232) identified bases with a central boss. However, this form is not the same as the Anuradhapura sherds. The Arretine ware found at Arikamedu by Wheeler (1946: 36–41) has affinities with this ware and may suggest Roman or Greek influence. The ancient city of Jaugada, 100 km southwest

of Sisupalgarh in Orissa, has yielded omphalos bowls (Allchin 1995: 146). Seven sherds have been discovered in trench ASW2, including two bases that clearly display the central protrusion. The sherds predominantly come from period G, which dates from c. 200 cal. BC to AD 130 cal., apart from one sherd from period F (AD 200–600). This demonstrates not only how small the assemblage is, but also its restricted temporal distribution.

Special find no: 2909 **Period: F**
Context: 367SW **Phase: XCII**
Weight: 9g
Description: Orange/grey slip on both sides. Fine with grey core. Part of base.
[Plate 1.2; Fig. 6.10]

Special find no: 6797 **Period: G5**
Context: 440SW **Phase: XCI**
Weight: 2g
Description: Small grey-slipped sherd with fine grey core.

Special find no: 6997 **Period: G5**
Context: 469SE **Phase: LXXXI**
Weight: 11g
Description: Orange exterior and black interior of base sherd. Fine with grey core.
[Plate 1.2; Fig. 6.10]

Special find no: 6599 **Period: G5**
Context: 426NE **Phase: LXXXVIII**
Weight: 20g
Description: Fine black-slipped on interior and orange/grey slip on exterior. Grey core. Omphalos. Glued to sf 6624.
[Plate 1.3; Fig. 6.10]

Special find no: 7139 **Period: G3**
Context: 449SW **Phase: LXXVI**
Weight: 6g
Description: Orange/grey slip on both sides. Grey core. Fine.
[Fig. 6.10]

Special find no: 6940 **Period: G3**
Context: 487NE **Phase: LXXXI**
Weight: 3g
Description: Rim sherd, possibly of omphalos type. Orange/grey slip on both sides, fine, grey core.

Special find no: 10006 **Period: G2**
Context: 602NW **Phase: LXXII**
Weight: 24g
Description: Fine black-slipped on both sides. Base with a central protrusion (omphalos). Grey core. One groove on exterior.
[Plate 1.3; Fig. 6.10]

6.2.11 White-slipped ware with red paint

This is an unusual ware and occurs in small quantities during the later periods of occupation. A total of 12 sherds have been discovered from trench ASW2 in periods D and B, which date from AD 600 to 1100. A similar ware was found by Begley (1996: 125–6) at Arikamedu, which she described as fine red ware. Three sherds were found from AV91-VI 013 and are thought to be part of one vessel, probably a bowl. The Anuradhapura sherds display a

slightly different form and not all the sherds are fine. They also contain a white slip like the Arikamedu sherds. Two fabrics have been identified here, one fine and one medium with sand inclusions. The former tends to have a grey core and the latter a red one, which is mainly due to the firing conditions. Of the ten sherds, seven are fine and mainly appear in period D, whereas the medium ones appear later in period B.

Fine rim sherds:

Special find no: 978 **Period: B5**
Context: 17 **Phase: CXIII**
Weight: 4g
Diameter: 5.5 cm
Description: Fine rim sherd, burnished with red and white colouration. Out-splayed rounded rim.
[Plate 1.3; Fig. 6.11]

Special find no: 86 **Period: B2**
Context: 27 **Phase: C**
Weight: 5g
Diameter: 7 cm
Description: Fine rim sherd, burnished with red and white colouration. Out-splayed rim with four grooves.
[Plate 1.3; Fig. 6.11]

Special find no: 234 **Period: B1**
Context: 25NE **Phase: XCVII**
Weight: 6g
Diameter: 14 cm
Description: Fine rim sherd with red and white colouration. Out-splaying rounded rim.
[Plate 1.3; Fig. 6.11]

Special find no: 979 **Period: D**
Context: 100NE **Phase: XCV**
Weight: 5g
Diameter: 13 cm
Description: Fine rim sherd, burnished and with red and white colouration. Out-splaying rounded rim.
[Plate 1.3; Fig. 6.11]

Medium rim sherds:

Special find no: 878 **Period: B5**
Context: 17SE **Phase: CXII**
Weight: 2.5g
Diameter: 14 cm
Description: Small rim sherd with red on edge and then white.
Red core, medium-grained and burnished. Rounded rim.

Fine body sherds:

Special find no: 795 **Period: D**
Context: 224NE **Phase: XCV**
Weight: 5g
Description: Fine body sherd with white slip on exterior.
Grey core.

Special find no: 2518 **Period: D**
Context: 320NE **Phase: XCV**
Weight: 4g
Description: Fine-grained body sherd with white slip
on one side. Grey core.

Special find no: 8561 **Period: F**
Context: 365NW **Phase: XCII**
Weight: 6g
Description: Fine body sherd with white slip on one side.
Grey core.

Special find no: 1316 **Period: D**
Context: 88NE **Phase: XCV**
Weight: 3g
Description: Body sherd with white slip on both sides.
Fine grey core.

Special find no: 1317 **Period: D**
Context: 88NE **Phase: XCV**
Weight: 2g
Description: Very fine body sherd with cream/yellow slip
on one side and grey core.

Medium body sherds:

Special find no: 28 **Period: B3**
Context: 9NE **Phase: CVI**
Weight: 3g
Description: Medium-grained body sherd with white slip
exterior.
on one side. Red core.

Special find no: 781 **Period: B2**
Context: 14NE **Phase: CII**
Weight: 1g
Description: Medium body sherd with white slip on
Red core.

6.2.12 Brown ware

This ware is medium-grained with a brown slip. A total of 57 sherds of this ware have been found in trench ASW2. These include 8 rim sherds and 49 body sherds. They all come from later periods with the earliest in period D and the latest in B3, which dates this ware between c. AD 600 and 1100. Period D contains the highest concentration with

45 sherds. Brown wares have also been found at Sigiriya, again in very small quantities (Bandaranayake 1984: 114). These have been dated to the sixth/seventh centuries AD based on historical data (ibid.: 6).

Rim sherds:

Special find no: 30056 **Period: B3**
Context: 9SE **Phase: CVI**
Weight: 18.8g
Diameter: unattainable
Description: Rim sherd.

Special find no: 30058 **Period: B1**
Context: 25SW **Phase: XCVII**
Weight: 5.4g
Diameter: unattainable
Description: Rim sherd.

Special find no: 30060 **Period: D**
Context: 158NW **Phase: XCV**
Weight: 24g
Diameter: unattainable
Description: 2 rim sherds.

Special find no: 30062 **Period: D**
Context: 88NE **Phase: XCV**
Weight: 2.6g
Diameter: unattainable
Description: Rim sherd.

Special find no: 30057 **Period: B2**
Context: 14NE **Phase: CII**
Weight: 11.4g
Diameter: unattainable
Description: Rim sherd.

Special find no: 30059 **Period: D**
Context: 107NE **Phase: XCV**
Weight: 13.5g
Diameter: unattainable
Description: Rim sherd.

Special find no: 30061 **Period: D**
Context: 88NE **Phase: XCV**
Weight: 6.3g
Diameter: unattainable
Description: Rim sherd.

Body sherds:

Special find no: 30037 Context: 9NW Weight: 4g Description: Body sherd.	Period: B3 Phase: CVI	Special find no: 30038 Context: 26NE Weight: 4g Description: Body sherd.	Period: B3 Phase: CIV
Special find no: 30039 Context: 9SW Weight: 5.5g Description: 3 body sherds.	Period: B3 Phase: CVI	Special find no: 30040 Context: 14NW Weight: 11.3g Description: 3 body sherds.	Period: B2 Phase: CII
Special find no: 30041 Context: 41 Weight: 4.2g Description: 2 body sherds. [Plate 1.3]	Period: B2 Phase: C	Special find no: 30042 Context: 41SW Weight: 3g Description: Body sherd.	Period: B2 Phase: C
Special find no: 30043 Context: 41SW Weight: 4.4g Description: 2 body sherds.	Period: B2 Phase: C	Special find no: 30044 Context: 41 Weight: 1.4g Description: Body sherd.	Period: B2 Phase: C
Special find no: 30045 Context: 51NW Weight: 4.2g Description: Body sherd.	Period: B1 Phase: XCIX	Special find no: 30046 Context: 56SW Weight: 24.7g Description: 8 body sherds.	Period: D Phase: XCV
Special find no: 30047 Context: 87SW Weight: 6g Description: 2 body sherds.	Period: D Phase: XCV	Special find no: 30048 Context: 88NE Weight: 20.5g Description: 6 body sherds.	Period: D Phase: XCV
Special find no: 30049 Context: 88NE Weight: 17.2g Description: 7 body sherds.	Period: D Phase: XCV	Special find no: 30050 Context: 111SW Weight: 16.6g Description: 2 body sherds.	Period: D Phase: XCV
Special find no: 30051 Context: 100NE Weight: 6.5g Description: 3 body sherds.	Period: D Phase: XCV	Special find no: 30052 Context: 100NE Weight: 6.8g Description: Body sherd.	Period: D Phase: XCV
Special find no: 30053 Context: 134SE Weight: 4 g Description: Body sherd.	Period: D Phase: XCV	Special find no: 30054 Context: 134SE Weight: 2.4g Description: Body sherd.	Period: D Phase: XCV
Special find no: 30055 Context: 197SW Weight: 4.7g Description: 3 body sherds.	Period: D Phase: XCV		

6.3 Coarse wares

6.3.1 Introduction

As noted in section 6.1, the typology and catalogue adopted by the ASW2 team was the same as that developed by Dr Siran Deraniyagala for his analysis of the entire Citadel mound. In introducing his catalogue, it is worth repeating his guidance notes for its use:

The form categories are classified in a four-tier hierarchy of macro- (1–84), meso- (A–S), sub- (a–f) and variant-form (i–iv). The macro-categories are based primarily on ethnographically defined functional forms in Sri Lanka (Deraniyagala 1984). Meso-forms are differentiated according to rim forms. Sub- and variant categories are based on differences between medium-small to small-scale attribute states. The illustrations provide adequate descriptive clarity in themselves. The written descriptions are merely supplementary; only the salient differentiating features will be highlighted – for instance, ‘rim’ signifies the category in question is distinguished by its rim form. (Deraniyagala, pers. comm.)

A total of 49 of Deraniyagala’s 84 macro-forms were identified and catalogued by the ceramic team. These forms clustered around the four basic classes of bowls, pots, jars and dishes with the addition of lamps, lids, portable stoves and architectural pinnacles. Following Cunliffe’s definitions, bowls have heights usually less than maximum diameters; rim diameters may be in excess of maximum body diameters (Cunliffe 1984: 232). Jars are held to have heights usually in excess of maximum diameters; rim diameters usually less than maximum body diameters (*ibid.*). Dishes have heights less than maximum diameters; maximum diameter usually at rim; and pots have heights approximately equal to diameter; rim diameter approximately equal to base diameters (*ibid.*). As with all catalogues, it is based on variability and variability in ceramic forms was prevalent in antiquity, and the reasons for this have been diverse (Miller 1985: 1–5). They include technological and social factors as recorded by ethnoarchaeological and archaeological observations (*ibid.*), but variation can also exist due to the number of potters and workshops involved in the production of the same type of vessels and therefore a greater range of skills, techniques and resources (Sinopoli 1991: 593). One of the social aspects involves the needs and wants of the consumer, such as the Hopi of northeast Arizona, who only produce variations in pottery form on demand (Stanislawski and Stanislawski 1978: 213–16). Most worryingly, variability can be identified within a form or ware that has been produced by a single potter as evidenced by ethnoarchaeological studies (Miller 1985: 41–2). This suggests that the morphological measurements taken by archaeologists are not necessarily an accurate distinguishing feature of different pottery types (*ibid.*: 43). Pottery classification systems are therefore difficult to formulate without knowledge of the potters’ behaviour, skill and cultural context. As a result of this,

pottery classifications are best served through ‘lumping together’ sherds with similar attributes, such as rim shape. ‘Splitting’ could create extra types that may be archaeologically insignificant and therefore produce misleading interpretations. We have adopted Deraniyagala’s system in order for our sequence to be compared with those from his excavation trenches when they are published in the future. As will be evident from the individual variant and form catalogue entries below, there are a number of variants and forms, which are extremely useful in terms of chronological or temporal differentiation (see Table 6.4). Shaded rows indicate sherds recovered from fully sealed contexts, such as pits and wells, but as too small a sample was recovered from such sources, the entire corpus is discussed below.

The analysis of ware categories of coarse wares from Anuradhapura has again been pioneered by Dr Siran Deraniyagala, who uses a three-fold hierarchy of macro-, meso- and sub-wares based on attributes such as paste texture, colour, thickness, hardness and technology in combination with other attributes such as surface treatment, colour and lustre (pers. comm.). Deraniyagala has identified a total of 32 ware categories from his excavated material from Anuradhapura, of which only three main categories are considered here. This apparent difference in representation at trench ASW2 reflects our decision to catalogue glazed and fine ware ceramics separately, in contrast to Deraniyagala’s scheme, which includes all ceramic categories regardless of origin or date. The three main ware categories recorded at trench ASW2 were 16, 17 and 18. Category 16, Black and Red ware, makes up one of the largest coarse ware categories at trench ASW2 with all of Deraniyagala’s five variants present (Deraniyagala, pers. comm.). Variant 16/A/i has a medium fine texture and a red-brown colour to its paste with a surface dressing which is black and red with a medium lustre. Found as early as structural phase I3, it appears later in the sequence than all the four medium-textured, red-brown pastes in Deraniyagala’s meso-category 16/B. Variant 16/B/i has a surface dressing and a black and red colour with a high lustre and 16/B/ii has a surface dressing and black and red colour but with a medium lustre. Variants 16/B/iii and 16/B/iv have a similar paste but have no surface dressing and a low lustre – the latter also having a thick body. Variant 16/B/i was first recorded in structural phase J4, 16/B/ii and 16/B/iii and 16/B/iv in Period K. Category 17 is a medium paste black ware and three of Deraniyagala’s four variants of meso-category 17/B are present. Variant 17/B/ii has a medium texture and black paste with a surface, which is dressed, black in colour and with a medium lustre, and 17/B/iii is similar but has a thin body. Variant 17/B/iv has a medium texture and black paste on a medium body with a surface, which is undressed, black in colour and low in lustre. Deraniyagala has noted that 17/B/ii may be a heavily reduced variant of Black and Red ware (category 16) (pers. comm.). Variant 17/B/iv first appears in structural phase J4, 17/B/ii in phase J2 and 17/B/iii in phase I7. Plain red brown ware forms

Deraniyagala's category 18 (pers. comm.) and five of its variants are present within the sequence at trench ASW2. Variant 18/A/i is a medium, red-brown paste with a surface, which is dressed, red-brown in colour and has a high lustre. Variant 18/A/ii is similar but has a medium lustre, while 18/A/iii has a low lustre and no surface dressing. Variant 18/B/i has a medium, red and thick-bodied paste with a red surface, which is dressed and has a medium lustre and variant 18/B/ii has a medium, red-

brown, thick-bodied paste with a red-brown surface without dressing but a low lustre. Variants 18/A/ii and 18/A/iii are in the sequence from its beginning in phase K1 and are joined by 18/B/ii in phase J2 and by 18/A/i in Period A. A table depicting the distribution of these wares within the sequence at ASW2 has been provided for further information (see Table 6.5).

6.3.2 The forms

6.3.2.1 Form 1: Shallow bowl or nambiliya

Form 1 is a shallow bowl with a wide mouth and external rim. Siran Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *nambiliya*, which is used for pre-cooking food preparation (pers.

comm.). Variant 1/E/A/2 is incised internally, a feature today associated with the sifting of sand and grit from rice before it is boiled (Gunasekera, Prematilleke and Silva 1971: 169) [Fig. 6.12].

Variant 1/A/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a semi-beaked rim developed inwards. While the sherds

in period C, D & E are difficult to interpret, its presence in periods I and G indicates a degree of antiquity and may be related to the beaked form of Rouletted ware.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
24	B2	C	1	50	30	1/A/A/1	18/B/ii
9	B4	CVI	1	35	28	1/A/A/1	18/B/ii
252	D	XCV	1	60	18	1/A/A/1	18/A/iii
353	D	XCV	1	50	32	1/A/A/1	18/B/ii
256	D	XCV	1	55	22	1/A/A/1	18/A/iii
56	D	XCV	1	10	10	1/A/A/1	18/A/iii
359	D	XCV	1	60	22	1/A/A/1	18/B/ii
632	G4	LXXXIII	1	30	24	1/A/A/1	18/B/ii
837	I7	XXXV	3	65	24	1/A/A/1	16/B/ii

Variant 1/B/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a rounded rim developed inwards. Its first appearance

was in phase I4, but examples are found throughout period F, period C, D & E and periods B and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	215	32	1/B/A/1	18/B/ii
4	A	CXIV	1	75	32	1/B/A/1	18/B/ii
4	A	CXIV	1	40	26	1/B/A/1	18/B/ii
55	B1	XCVI	1	105	12	1/B/A/1	18/A/ii
5	B5	CXII	1	115	32	1/B/A/1	18/B/i
256	D	XCV	1	20	20	1/B/A/1	18/A/iii
272	D	XCV	1	40	22	1/B/A/1	18/B/ii
284	D	XCV	1	85	32	1/B/A/1	18/B/ii
356	D	XCV	1	70	26	1/B/A/1	18/B/ii
364	F	XCII	1	80	22	1/B/A/1	18/B/ii
203	F	XCIII	2	130	26	1/B/A/1	18/B/ii
885	I4	XXXII	1	25	20	1/B/A/1	18/A/iii
880	I5	XXXIII	1	20	18	1/B/A/1	18/A/iii

Variant 1/B/A/2

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has

a well rounded rim developed inwards. The only example was recovered from the beginning of period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1407	J2	XIV	1	30	22	1/B/A/2	17/B/ii

Variant 1/C/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a rim with a pointed lip which has been rounded extern-

ally. The earliest example was recorded in phase J1, close to the beginning of the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	175	30	1/C/A/1	18/A/iii
4	A	CXIV	1	80	30	1/C/A/1	18/B/ii
25	B1	XCVII	1	35	28	1/C/A/1	18/B/ii
359	D	XCV	1	10	28	1/C/A/1	18/B/ii
355	F	XCIII	1	30	22	1/C/A/1	18/A/iii
416	G5	XCI	1	45	28	1/C/A/1	18/B/ii
1125	I1	XXIII	1	35	20	1/C/A/1	18/A/iii
1612	J1	XIII	1	35	22	1/C/A/1	18/A/iii

Variant 1/D/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a rim with a pointed lip which has been bifacially

thickened. The single example from ASW2 was recovered from period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1098	I4	XXXI	1	20	22	1/D/A/1	18/A/iii

Variant 1/E/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a widened, rounded rim. Predominantly associated with

the later phases and periods of the trench, its earliest recorded appearance was in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	5	545	30	1/E/A/1	18/A/i
4	A	CXIV	1	125	34	1/E/A/1	18/A/ii
4	A	CXIV	1	50	22	1/E/A/1	18/A/ii
4	A	CXIV	11	440	22	1/E/A/1	18/A/ii
4	A	CXIV	3	115	22	1/E/A/1	18/A/ii
4	A	CXIV	2	65	20	1/E/A/1	18/A/ii
4	A	CXIV	1	170	24	1/E/A/1	18/A/ii
4	A	CXIV	34	1040	20	1/E/A/1	18/A/iii
4	A	CXIV	9	330	26	1/E/A/1	18/A/iii
4	A	CXIV	5	540	30	1/E/A/1	18/A/iii
4	A	CXIV	10	300	22	1/E/A/1	18/A/iii
4	A	CXIV	35	1350	24	1/E/A/1	18/A/iii
4	A	CXIV	1	205	20	1/E/A/1	18/A/iii
4	A	CXIV	8	430	26	1/E/A/1	18/A/iii
4	A	CXIV	8	430	26	1/E/A/1	18/A/iii
4	A	CXIV	6	340	24	1/E/A/1	18/A/iii
4	A	CXIV	1	20	18	1/E/A/1	18/A/iii
4	A	CXIV	1	165	18	1/E/A/1	18/A/iii
4	A	CXIV	1	45	30	1/E/A/1	18/A/iii

Anuradhapura: The Artefacts

4	A	CXIV	21	895	26	1/E/A/1	18/A/iii
4	A	CXIV	7	175	20	1/E/A/1	18/A/iii
4	A	CXIV	2	90	20	1/E/A/1	18/A/iii
4	A	CXIV	1	120	30	1/E/A/1	18/B/1
4	A	CXIV	1	180	30	1/E/A/1	18/B/1
4	A	CXIV	4	570	32	1/E/A/1	18/B/1
4	A	CXIV	7	780	34	1/E/A/1	18/B/ii
4	A	CXIV	1	245	28	1/E/A/1	18/B/ii
4	A	CXIV	1	165	30	1/E/A/1	18/B/ii
4	A	CXIV	2	285	28	1/E/A/1	18/B/ii
4	A	CXIV	1	115	30	1/E/A/1	18/B/ii
4	A	CXIV	1	355	30	1/E/A/1	18/B/ii
4	A	CXIV	2	245	32	1/E/A/1	18/B/ii
4	A	CXIV	1	160	30	1/E/A/1	18/B/ii
4	A	CXIV	1	265	36	1/E/A/1	18/B/ii
3	A1	CXV	2	55	22	1/E/A/1	18/A/ii
3	A1	CXV	5	225	22	1/E/A/1	18/A/ii
3	A1	CXV	2	320	44	1/E/A/1	18/B/ii
1	A2	CXVIII	10	355	20	1/E/A/1	18/A/iii
1	A2	CXVIII	22	560	26	1/E/A/1	18/A/iii
55	B1	XCVI	2	245	28	1/E/A/1	18/A/ii
25	B1	XCVII	2	55	22	1/E/A/1	18/A/ii
55	B1	XCVI	1	250	38	1/E/A/1	18/A/iii
55	B1	XCVI	1	60	26	1/E/A/1	18/A/iii
55	B1	XCVI	9	460	28	1/E/A/1	18/A/iii
58	B1	XCVI	1	50	22	1/E/A/1	18/A/iii
25	B1	XCVII	1	60	24	1/E/A/1	18/A/iii
25	B1	XCVII	1	130	28	1/E/A/1	18/A/iii
51	B1	XCIX	1	115	24	1/E/A/1	18/A/iii
51	B1	XCIX	11	615	24	1/E/A/1	18/A/iii
51	B1	XCIX	2	60	24	1/E/A/1	18/A/iii
55	B1	XCVI	1	485	38	1/E/A/1	18/B/1
51	B1	XCIX	1	40	30	1/E/A/1	18/B/1
51	B1	XCIX	2	200	30	1/E/A/1	18/B/ii
51	B1	XCIX	1	610	42	1/E/A/1	18/B/ii
24	B2	C	8	370	22	1/E/A/1	18/A/iii
24	B2	C	1	125	22	1/E/A/1	18/A/iii
24	B2	C	2	300	28	1/E/A/1	18/A/iii
27	B2	C	1	40	24	1/E/A/1	18/A/iii
27	B2	C	2	45	24	1/E/A/1	18/A/iii
27	B2	C	6	355	24	1/E/A/1	18/A/iii
24	B2	C	1	230	30	1/E/A/1	18/B/ii
27	B2	C	2	305	30	1/E/A/1	18/B/ii
14	B3	CII	1	40	22	1/E/A/1	18/A/iii
14	B3	CII	2	400	30	1/E/A/1	18/A/iii
14	B3	CII	1	80	26	1/E/A/1	18/A/iii
16	B3	CIII	2	100	24	1/E/A/1	18/A/iii
26	B3	CIIV	6	325	24	1/E/A/1	18/A/iii
26	B3	CIIV	3	115	22	1/E/A/1	18/A/iii
16	B3	CIII	12	520	22	1/E/A/1	18/A/iii
26	B3	CIIV	6	635	30	1/E/A/1	18/B/ii
26	B3	CIIV	4	650	28	1/E/A/1	18/B/ii
9	B4	CVI	5	700	38	1/E/A/1	18/B/ii
9	B4	CVI	4	145	22	1/E/A/1	18/B/ii
9	B4	CVI	22	955	22	1/E/A/1	18/A/iii
9	B4	CVI	13	525	20	1/E/A/1	18/A/iii
9	B4	CVI	6	465	22	1/E/A/1	18/A/iii

Unglazed Ceramics

9	B4	XVI	1	95	26	1/E/A/1	18/A/ii
9	B4	CVI	1	45	24	1/E/A/1	18/A/ii
9	B4	CVI	3	425	28	1/E/A/1	18/B/i
9	B4	CVI	6	575	32	1/E/A/1	18/B/ii
9	B4	CVI	5	800	32	1/E/A/1	18/B/ii
17	B5	CXIII	6	355	22	1/E/A/1	18/A/ii
17	B5	CXIII	2	200	22	1/E/A/1	18/A/ii
5	B5	CXII	2	80	24	1/E/A/1	18/A/iii
5	B5	CXII	2	95	24	1/E/A/1	18/A/iii
5	B5	CXII	6	190	28	1/E/A/1	18/A/iii
17	B5	CXIII	3	145	26	1/E/A/1	18/A/iii
17	B5	CXIII	1	240	30	1/E/A/1	18/B/I
5	B5	CXII	17	1780	36	1/E/A/1	18/B/ii
263	C	XCV	6	255	24	1/E/A/1	18/A/ii
263	C	XCV	5	205	22	1/E/A/1	18/A/ii
263	C	XCV	1	90	26	1/E/A/1	18/A/iii
263	C	XCV	1	100	10	1/E/A/1	18/A/iii
263	C	XCV	11	590	22	1/E/A/1	18/A/iii
263	C	XCV	1	95	30	1/E/A/1	18/B/ii
263	C	XCV	3	240	28	1/E/A/1	18/B/ii
263	C	XCV	7	1690	34	1/E/A/1	18/B/ii
263	C	XCV	2	360	30	1/E/A/1	18/B/ii
263	C	XCV	7	815	30	1/E/A/1	18/B/ii
263	C	XCV	1	155	30	1/E/A/1	18/B/ii
158	D	XCV	9	440	20	1/E/A/1	18/A/ii
178	D	XCV	2	150	18	1/E/A/1	18/A/ii
196	D	XCV	1	130	34	1/E/A/1	18/A/ii
196	D	XCV	2	185	28	1/E/A/1	18/A/ii
205	D	XCV	4	95	20	1/E/A/1	18/A/ii
250	D	XCV	1	35	20	1/E/A/1	18/A/ii
253	D	XCV	2	85	22	1/E/A/1	18/A/ii
254	D	XCV	2	40	20	1/E/A/1	18/A/ii
271	D	XCV	7	220	18	1/E/A/1	18/A/ii
272	D	XCV	1	30	22	1/E/A/1	18/A/ii
287	D	XCV	1	25	22	1/E/A/1	18/A/ii
292	D	XCV	2	559	22	1/E/A/1	18/A/ii
296	D	XCV	1	85	22	1/E/A/1	18/A/ii
324	D	XCV	6	310	20	1/E/A/1	18/A/ii
353	D	XCV	1	40	18	1/E/A/1	18/A/ii
359	D	XCV	1	45	20	1/E/A/1	18/A/ii
360	D	XCV	1	35	20	1/E/A/1	18/A/ii
158	D	XCV	2	130	22	1/E/A/1	18/A/ii
193	D	XCV	1	40	20	1/E/A/1	18/A/ii
256	D	XCV	5	150	20	1/E/A/1	18/A/ii
352	D	XCV	1	30	22	1/E/A/1	18/A/ii
352	D	XCV	2	65	24	1/E/A/1	18/A/ii
151	D	XCV	1	25	22	1/E/A/1	18/A/iii
155	D	XCV	2	75	24	1/E/A/1	18/A/iii
156	D	XCV	1	30	22	1/E/A/1	18/A/iii
158	D	XCV	4	185	32	1/E/A/1	18/A/iii
158	D	XCV	31	1100	22	1/E/A/1	18/A/iii
158	D	XCV	21	705	24	1/E/A/1	18/A/iii
168	D	XCV	4	100	22	1/E/A/1	18/A/iii
175	D	XCV	1	40	20	1/E/A/1	18/A/iii
178	D	XCV	1	30	18	1/E/A/1	18/A/iii
178	D	XCV	2	115	36	1/E/A/1	18/A/iii
182	D	XCV	2	95	24	1/E/A/1	18/A/iii

Anuradhapura: The Artefacts

192	D	XCV	1	65	22	1/E/A/1	18/A/ii
196	D	XCV	1	25	18	1/E/A/1	18/A/ii
204	D	XCV	1	145	24	1/E/A/1	18/A/ii
211	D	XCV	2	70	22	1/E/A/1	18/A/ii
212	D	XCV	1	30	22	1/E/A/1	18/A/ii
215	D	XCV	1	35	24	1/E/A/1	18/A/ii
226	D	XCV	4	110	24	1/E/A/1	18/A/ii
252	D	XCV	1	10	24	1/E/A/1	18/A/ii
253	D	XCV	1	85	28	1/E/A/1	18/A/ii
255	D	XCV	3	90	20	1/E/A/1	18/A/ii
269	D	XCV	5	130	22	1/E/A/1	18/A/ii
271	D	XCV	2	70	16	1/E/A/1	18/A/ii
272	D	XCV	6	280	26	1/E/A/1	18/A/ii
272	D	XCV	7	335	24	1/E/A/1	18/A/ii
272	D	XCV	2	85	16	1/E/A/1	18/A/ii
273	D	XCV	1	40	22	1/E/A/1	18/A/ii
273	D	XCV	1	40	24	1/E/A/1	18/A/ii
283	D	XCV	2	185	28	1/E/A/1	18/A/ii
283	D	XCV	5	135	22	1/E/A/1	18/A/ii
284	D	XCV	1	35	24	1/E/A/1	18/A/ii
284	D	XCV	5	180	24	1/E/A/1	18/A/ii
285	D	XCV	2	160	30	1/E/A/1	18/A/ii
285	D	XCV	2	65	26	1/E/A/1	18/A/ii
289	D	XCV	1	20	12	1/E/A/1	18/A/ii
291	D	XCV	1	25	20	1/E/A/1	18/A/ii
292	D	XCV	4	120	26	1/E/A/1	18/A/ii
294	D	XCV	1	50	18	1/E/A/1	18/A/ii
294	D	XCV	1	15	22	1/E/A/1	18/A/ii
296	D	XCV	1	110	24	1/E/A/1	18/A/ii
296	D	XCV	2	185	30	1/E/A/1	18/A/ii
299	D	XCV	1	180	26	1/E/A/1	18/A/ii
299	D	XCV	17	555	26	1/E/A/1	18/A/ii
324	D	XCV	1	40	22	1/E/A/1	18/A/ii
325	D	XCV	12	455	18	1/E/A/1	18/A/ii
325	D	XCV	42	188	24	1/E/A/1	18/A/ii
353	D	XCV	7	290	24	1/E/A/1	18/A/ii
353	D	XCV	1	70	18	1/E/A/1	18/A/ii
353	D	XCV	7	250	24	1/E/A/1	18/A/ii
356	D	XCV	2	100	26	1/E/A/1	18/A/ii
360	D	XCV	1	60	20	1/E/A/1	18/A/ii
56	D	XCV	3	65	22	1/E/A/1	18/A/ii
86	D	XCV	5	305	22	1/E/A/1	18/A/ii
56	D	XCV	2	75	22	1/E/A/1	18/A/ii
158	D	XCV	9	285	22	1/E/A/1	18/A/ii
253	D	XCV	1	45	28	1/E/A/1	18/A/ii
254	D	XCV	1	105	26	1/E/A/1	18/A/ii
256	D	XCV	1	45	21	1/E/A/1	18/A/ii
257	D	XCV	1	125	24	1/E/A/1	18/A/ii
271	D	XCV	3	105	22	1/E/A/1	18/A/ii
272	D	XCV	3	70	18	1/E/A/1	18/A/ii
285	D	XCV	2	105	24	1/E/A/1	18/A/ii
251	D	XCV	4	125	18	1/E/A/1	18/A/ii
255	D	XCV	2	300	34	1/E/A/1	18/B/1
262	D	XCV	1	165	40	1/E/A/1	18/B/1
285	D	XCV	1	185	28	1/E/A/1	18/B/1
325	D	XCV	5	700	36	1/E/A/1	18/B/1
256	D	XCV	3	265	30	1/E/A/1	18/B/1

Unglazed Ceramics

256	D	XCV	5	630	34	1/E/A/1	18/B/I
256	D	XCV	7	670	28	1/E/A/1	18/B/I
158	D	XCV	3	370	32	1/E/A/1	18/B/ii
158	D	XCV	1	135	26	1/E/A/1	18/B/ii
158	D	XCV	16	1260	28	1/E/A/1	18/B/ii
158	D	XCV	3	205	32	1/E/A/1	18/B/ii
182	D	XCV	4	600	28	1/E/A/1	18/B/ii
196	D	XCV	1	65	22	1/E/A/1	18/B/ii
215	D	XCV	1	50	24	1/E/A/1	18/B/ii
255	D	XCV	2	5309	36	1/E/A/1	18/B/ii
271	D	XCV	1	70	24	1/E/A/1	18/B/ii
272	D	XCV	1	40	26	1/E/A/1	18/B/ii
272	D	XCV	6	560	26	1/E/A/1	18/B/ii
285	D	XCV	4	810	32	1/E/A/1	18/B/ii
285	D	XCV	6	675	28	1/E/A/1	18/B/ii
287	D	XCV	1	105	28	1/E/A/1	18/B/ii
292	D	XCV	1	80	28	1/E/A/1	18/B/ii
294	D	XCV	1	45	28	1/E/A/1	18/B/ii
296	D	XCV	1	60	24	1/E/A/1	18/B/ii
299	D	XCV	6	485	28	1/E/A/1	18/B/ii
324	D	XCV	1	85	26	1/E/A/1	18/B/ii
325	D	XCV	16	1370	38	1/E/A/1	18/B/ii
356	D	XCV	1	130	32	1/E/A/1	18/B/ii
359	D	XCV	1	60	28	1/E/A/1	18/B/ii
86	D	XCV	2	415	32	1/E/A/1	18/B/ii
253	D	XCV	1	155	28	1/E/A/1	18/B/ii
253	D	XCV	2	305	36	1/E/A/1	18/B/ii
257	D	XCV	1	100	30	1/E/A/1	18/B/ii
364	F	XCII	1	35	26	1/E/A/1	18/A/ii
365	F	XCII	1	35	26	1/E/A/1	18/A/ii
367	F	XCII	1	50	20	1/E/A/1	18/A/ii
364	F	XCII	1	60	24	1/E/A/1	18/A/iii
367	F	XCII	1	55	18	1/E/A/1	18/A/iii
210	F	XCIII	2	185	22	1/E/A/1	18/A/iii
209	F	XCIII	1	20	24	1/E/A/1	18/A/iii
264	F	XCIII	2	210	30	1/E/A/1	18/B/ii
1125	I1	XXIII	4	60	20	1/E/A/1	18/A/iii
1125	I1	XXIII	1	20	20	1/E/A/1	18/A/iii
1125	I1	XXIII	2	70	20	1/E/A/1	18/B/ii
977	I3	XXVIII	1	20	17	1/E/A/1	18/A/iii
961	I4	XXX	1	75	20	1/E/A/1	18/A/iii

Variant 1/E/A/2

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has a wide, rounded, almost pointed, rim and has been

internally incised. With the exception of a single sherd of this form in period I, this form is almost entirely associated with the later phases of the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	160	28	1/E/A/2	18/A/ii
4	A	CXIV	10	900	28	1/E/A/2	18/A/iii
4	A	CXIV	4	370	28	1/E/A/2	18/A/iii
4	A	CXIV	2	85	22	1/E/A/2	18/A/iii
4	A	CXIV	3	340	32	1/E/A/2	18/A/iii
4	A	CXIV	3	455	36	1/E/A/2	18/B/I
4	A	CXIV	53	4210	36	1/E/A/2	18/B/ii
4	A	CXIV	14	980	28	1/E/A/2	18/B/ii

Anuradhapura: The Artefacts

4	A	CXIV	3	100	32	1/E/A/2	18/B/i
4	A	CXIV	18	1970	28	1/E/A/2	18/B/i
4	A	CXIV	33	3260	30	1/E/A/2	18/B/i
4	A	CXIV	4	385	30	1/E/A/2	18/B/i
4	A	CXIV	2	800	40	1/E/A/2	18/B/i
4	A	CXIV	11	1125	40	1/E/A/2	18/B/i
4	A	CXIV	1	290	40	1/E/A/2	18/B/i
4	A	CXIV	20	2010	38	1/E/A/2	18/B/i
4	A	CXIV	1	75	30	1/E/A/2	18/B/i
4	A	CXIV	4	785	36	1/E/A/2	18/B/i
4	A	CXIV	2	680	34	1/E/A/2	18/B/i
4	A	CXIV	5	360	32	1/E/A/2	18/B/i
4	A	CXIV	2	300	38	1/E/A/2	18/B/i
4	A	CXIV	10	1090	36	1/E/A/2	18/B/i
4	A	CXIV	29	2720	36	1/E/A/2	18/B/i
4	A	CXIV	13	1240	36	1/E/A/2	18/B/i
3	A1	CXV	15	1290	32	1/E/A/2	18/B/i
1	A2	CXVIII	1	165	26	1/E/A/2	18/A/iii
1	A2	CXVIII	22	1860	26	1/E/A/2	18/B/i
25	B1	XCVII	2	215	32	1/E/A/2	18/A/i
55	B1	XCVI	7	1125	38	1/E/A/2	18/B/i
55	B1	XCVI	10	1430	38	1/E/A/2	18/B/i
25	B1	XCVII	2	620	40	1/E/A/2	18/B/i
25	B1	XCVII	2	665	30	1/E/A/2	18/B/i
25	B1	XCVII	4	525	28	1/E/A/2	18/B/i
51	B1	XCIX	10	1210	28	1/E/A/2	18/B/i
51	B1	XCIX	5	360	32	1/E/A/2	18/B/i
27	B2	C	3	450	30	1/E/A/2	18/A/i
24	B2	C	4	180	24	1/E/A/2	18/A/iii
24	B2	C	3	210	16	1/E/A/2	18/A/iii
24	B2	C	6	735	30	1/E/A/2	18/B/i
24	B2	C	7	750	32	1/E/A/2	18/B/i
24	B2	C	2	425	32	1/E/A/2	18/B/i
27	B2	C	8	920	30	1/E/A/2	18/B/i
27	B2	C	12	1640	30	1/E/A/2	18/B/i
27	B2	C	7	1250	38	1/E/A/2	18/B/i
16	B3	CIII	3	230	28	1/E/A/2	18/A/iii
26	B3	CIV	3	190	24	1/E/A/2	18/A/iii
14	B3	CII	3	540	42	1/E/A/2	18/B/i
16	B3	CIII	3	400	30	1/E/A/2	18/B/i
26	B3	CIV	22	2530	32	1/E/A/2	18/B/i
9	B4	CVI	7	815	26	1/E/A/2	18/A/iii
9	B4	CVI	1	260	34	1/E/A/2	18/A/iii
9	B4	CVI	8	175	24	1/E/A/2	18/A/iii
9	B4	CVI	6	800	40	1/E/A/2	18/B/i
9	B4	CVI	40	4800	40	1/E/A/2	18/B/i
9	B4	CVI	8	1040	40	1/E/A/2	18/B/i
9	B4	CVI	1	75	34	1/E/A/2	18/B/i
5	B5	CXII	2	110	26	1/E/A/2	18/A/iii
5	B5	CXII	3	440	28	1/E/A/2	18/A/iii
5	B5	CXII	12	785	28	1/E/A/2	18/A/iii
17	B5	CXIII	3	340	28	1/E/A/2	18/A/iii
17	B5	CXIII	3	105	22	1/E/A/2	18/A/iii
5	B5	CXII	1	250	30	1/E/A/2	18/B/i
5	B5	CXII	9	760	30	1/E/A/2	18/B/i
5	B5	CXII	3	659	40	1/E/A/2	18/B/i
5	B5	CXII	2	750	48	1/E/A/2	18/B/i

Unglazed Ceramics

5	B5	CXII	8	855	32	1/E/A/2	18/B/ii
5	B5	CXII	1	360	42	1/E/A/2	18/B/ii
17	B5	CXIII	8	680	30	1/E/A/2	18/B/ii
17	B5	CXIII	8	830	30	1/E/A/2	18/B/ii
17	B5	CXIII	7	870	38	1/E/A/2	18/B/ii
17	B5	CXIII	3	1085	46	1/E/A/2	18/B/ii
263	C	XCV	8	935	38	1/E/A/2	15/B/ii
263	C	XCV	3	125	26	1/E/A/2	18/A/ii
263	C	XCV	3	175	26	1/E/A/2	18/A/iii
263	C	XCV	2	630	44	1/E/A/2	18/B/ii
263	C	XCV	4	630	36	1/E/A/2	18/B/ii
263	C	XCV	16	2080	40	1/E/A/2	18/B/ii
263	C	XCV	17	2135	30	1/E/A/2	18/B/ii
263	C	XCV	3	435	30	1/E/A/2	18/B/ii
263	C	XCV	9	1985	30	1/E/A/2	18/B/ii
256	D	XCV	4	460	30	1/E/A/2	18/A/ii
268	D	XCV	1	60	28	1/E/A/2	18/A/ii
360	D	XCV	1	20	32	1/E/A/2	18/A/ii
285	D	XCV	2	265	26	1/E/A/2	18/A/ii
128	D	XCV	1	45	22	1/E/A/2	18/A/iii
158	D	XCV	1	130	28	1/E/A/2	18/A/iii
190	D	XCV	1	290	38	1/E/A/2	18/A/iii
196	D	XCV	1	50	22	1/E/A/2	18/A/iii
215	D	XCV	1	20	26	1/E/A/2	18/A/iii
255	D	XCV	1	40	22	1/E/A/2	18/A/iii
255	D	XCV	1	45	28	1/E/A/2	18/A/iii
295	D	XCV	1	65	26	1/E/A/2	18/A/iii
325	D	XCV	1	370	28	1/E/A/2	18/A/iii
325	D	XCV	7	485	36	1/E/A/2	18/A/iii
56	D	XCV	4	475	36	1/E/A/2	18/A/iii
256	D	XCV	5	220	24	1/E/A/2	18/A/iii
272	D	XCV	1	95	18	1/E/A/2	18/A/iii
273	D	XCV	3	135	4	1/E/A/2	18/A/iii
285	D	XCV	3	150	26	1/E/A/2	18/A/iii
352	D	XCV	5	405	26	1/E/A/2	18/A/iii
285	D	XCV	3	305	28	1/E/A/2	18/B/I
285	D	XCV	7	1440	28	1/E/A/2	18/B/I
289	D	XCV	2	175	22	1/E/A/2	18/B/I
269	D	XCV	1	60	28	1/E/A/2	18/B/I
128	D	XCV	8	1490	30	1/E/A/2	18/B/ii
128	D	XCV	3	580	44	1/E/A/2	18/B/ii
155	D	XCV	1	80	38	1/E/A/2	18/B/ii
156	D	XCV	1	65	28	1/E/A/2	18/B/ii
158	D	XCV	67	5865	30	1/E/A/2	18/B/ii
168	D	XCV	3	190	28	1/E/A/2	18/B/ii
178	D	XCV	5	350	24	1/E/A/2	18/B/ii
182	D	XCV	5	700	42	1/E/A/2	18/B/ii
196	D	XCV	8	965	34	1/E/A/2	18/B/ii
197	D	XCV	2	285	32	1/E/A/2	18/B/ii
204	D	XCV	1	355	44	1/E/A/2	18/B/ii
211	D	XCV	6	550	28	1/E/A/2	18/B/ii
215	D	XCV	1	130	26	1/E/A/2	18/B/ii
226	D	XCV	3	190	26	1/E/A/2	18/B/ii
251	D	XCV	2	135	34	1/E/A/2	18/B/ii
252	D	XCV	2	205	30	1/E/A/2	18/B/ii
253	D	XCV	4	445	32	1/E/A/2	18/B/ii
259	D	XCV	6	820	30	1/E/A/2	18/B/ii

Anuradhapura: The Artefacts

259	D	XCV	1	100	30	1/E/A/2	18/B/i
261	D	XCV	3	445	30	1/E/A/2	18/B/i
262	D	XCV	1	230	40	1/E/A/2	18/B/i
271	D	XCV	6	430	28	1/E/A/2	18/B/i
271	D	XCV	1	60	26	1/E/A/2	18/B/i
272	D	XCV	12	1145	26	1/E/A/2	18/B/i
272	D	XCV	2	200	26	1/E/A/2	18/B/i
273	D	XCV	2	265	28	1/E/A/2	18/B/i
283	D	XCV	3	470	30	1/E/A/2	18/B/i
284	D	XCV	2	220	28	1/E/A/2	18/B/i
284	D	XCV	6	680	32	1/E/A/2	18/B/i
285	D	XCV	1	390	30	1/E/A/2	18/B/i
285	D	XCV	7	1360	42	1/E/A/2	18/B/i
285	D	XCV	16	2580	42	1/E/A/2	18/B/i
287	D	XCV	4	285	28	1/E/A/2	18/B/i
287	D	XCV	5	610	30	1/E/A/2	18/B/i
292	D	XCV	3	215	28	1/E/A/2	18/B/i
296	D	XCV	2	130	28	1/E/A/2	18/B/i
296	D	XCV	1	145	30	1/E/A/2	18/B/i
299	D	XCV	6	370	24	1/E/A/2	18/B/i
299	D	XCV	7	895	30	1/E/A/2	18/B/i
299	D	XCV	3	180	28	1/E/A/2	18/B/i
322	D	XCV	1	35	18	1/E/A/2	18/B/i
324	D	XCV	6	150	32	1/E/A/2	18/B/i
325	D	XCV	2	330	30	1/E/A/2	18/B/i
325	D	XCV	44	5510	32	1/E/A/2	18/B/i
353	D	XCV	14	1135	28	1/E/A/2	18/B/i
356	D	XCV	2	445	36	1/E/A/2	18/B/i
356	D	XCV	5	545	38	1/E/A/2	18/B/i
360	D	XCV	1	125	32	1/E/A/2	18/B/i
86	D	XCV	3	350	34	1/E/A/2	18/B/i
86	D	XCV	9	1440	42	1/E/A/2	18/B/i
56	D	XCV	6	260	24	1/E/A/2	18/B/i
158	D	XCV	9	959	28	1/E/A/2	18/B/i
253	D	XCV	2	550	38	1/E/A/2	18/B/i
253	D	XCV	5	750	38	1/E/A/2	18/B/i
285	D	XCV	4	445	80	1/E/A/2	18/B/i
357	D	XCV	1	95	24	1/E/A/2	18/B/i
264	F	XCIII	1	70	22	1/E/A/2	18/A/i
194	F	XCIII	1	65	24	1/E/A/2	18/A/i
200	F	XCIII	2	80	20	1/E/A/2	18/A/i
364	F	XCII	1	80	26	1/E/A/2	18/B/1
363	F	XCIII	2	185	40	1/E/A/2	18/B/1
210	F	XCIII	3	580	46	1/E/A/2	18/B/i
358	F	XCIII	4	465	36	1/E/A/2	18/B/i
209	F	XCIII	1	55	28	1/E/A/2	18/B/i
264	F	XCIII	1	500	34	1/E/A/2	18/B/i
634	G2	LXIX	1	70	26	1/E/A/2	18/B/i

Variant 1/E/A/3

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. It has

a widened, rounded rim and a fairly vertical profile. Its 20 sherds are from periods A, B and C, D & E only.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	12	605	28	1/E/A/3	18/A/iii
4	A	CXIV	1	35	20	1/E/A/3	18/A/iii

Unglazed Ceramics

9	B4	CVI	1	100	28	1/E/A/3	18/A/iii
263	C	XCV	1	25	22	1/E/A/3	18/A/iii
356	D	XCV	2	130	28	1/E/A/3	18/A/ii
253	D	XCV	1	35	20	1/E/A/3	18/A/ii
294	D	XCV	1	30	16	1/E/A/3	18/A/iii
325	D	XCV	1	40	20	1/E/A/3	18/A/iii

Variants 1/F/A/2, 1/F/A/3 and 1/G/A/1

Shallow bowl with conspicuously thickened rim. The form has no carinations on the profile and no neck. Forms 1/F/A/2 and 1/F/A/3 are grooved and decorated on

the upper side of the rim, while 1/G/A/a has a T-shaped rim.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	6	305	28	1/F/A/2	18/B/I
1	A2	CXVIII	1	50	16	1/F/A/2	18/A/iii
4	A	CXIV	1	100	40	1/F/A/3	18/B/iii
263	C	XCV	1	70	26	1/G/A/1	18/A/iii

6.3.2.2 Form 2: Bowl or atili

Form 2 is a bowl whose mouth is wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *atili*, which is used for

cooking curries and boiling rice (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169) [Fig. 6.13].

Variants 2/A/A/1 and 2/A/B/1

A small, deep bowl, 2/A/A/1 has a slightly thickened and externally rolled lip and 2/A/B/1 has a strong outward flare. Both variants make their first appearance in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	10	14	2/A/A/1	18/A/iii
961	I4	XXX	2	35	22	2/A/A/1	18/A/iii
885	I4	XXXII	1	15	8	2/A/A/1	18/A/iii
834	I6	XXXVII	1	15	14	2/A/A/1	18/A/iii
4	A	CXIV	1	15	18	2/A/B/1	18/A/iii
4	A	CXIV	1	30	26	2/A/B/1	18/B/ii
256	D	XCV	1	15	18	2/A/B/1	18/A/ii
496	G3	LXXVI	1	10	24	2/A/B/1	16/B/ii
1101	I2	XXVI	1	35	18	2/A/B/1	18/A/ii
1119	I3	XXIX	3	100	18	2/A/B/1	16/B/iii
992	I4	XXXI	2	20	20	2/A/B/1	16/B/ii

Variant 2/B/A/1

Deep bowl without carinations and with a somewhat rolled rim. The earliest example of this form occurs in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	90	22	2/B/A/1	18/A/i
4	A	CXIV	1	20	10	2/B/A/1	18/A/ii
4	A	CXIV	1	30	20	2/B/A/1	18/A/ii
19	B4	CX	1	130	32	2/B/A/1	18/B/i
285	D	XCV	1	35	22	2/B/A/1	18/A/ii
961	I4	XXX	3	45	16	2/B/A/1	18/A/i

Variant 2/B/A/2

Deep bowl with carination. As the earliest examples were recovered from period F, this form is clearly a later development..

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	50	20	2/B/A/2	18/A/i
4	A	CXIV	1	30	24	2/B/A/2	18/A/ii
4	A	CXIV	2	35	24	2/B/A/2	18/A/ii
4	A	CXIV	2	200	36	2/B/A/2	18/A/ii
4	A	CXIV	1	35	24	2/B/A/2	18/A/ii
4	A	CXIV	1	55	26	2/B/A/2	18/A/ii
4	A	CXIV	1	40	22	2/B/A/2	18/A/ii
4	A	CXIV		120	34	2/B/A/2	18/A/ii
4	A	CXIV	1	55	32	2/B/A/2	18/A/ii
4	A	CXIV	1	65	30	2/B/A/2	18/A/ii
4	A	CXIV	1	75	28	2/B/A/2	18/A/ii
4	A	CXIV	2	200	44	2/B/A/2	18/B/i
4	A	CXIV	1	160	46	2/B/A/2	18/B/i
4	A	CXIV	1	55	26	2/B/A/2	18/B/i
3	A1	CXV	1	105	30	2/B/A/2	18/B/i
25	B1	XCVII	2	50	22	2/B/A/2	18/A/ii
25	B1	XCVII	1	20	28	2/B/A/2	18/A/ii
25	B1	XCVII	1	20	20	2/B/A/2	18/A/ii
25	B1	XCVII	1	105	26	2/B/A/2	18/A/ii
25	B1	XCVII	3	110	26	2/B/A/2	18/A/ii
9	B4	CVI	2	150	24	2/B/A/2	18/A/ii
175	D	XCV	1	25	24	2/B/A/2	18/A/ii
256	D	XCV	1	35	26	2/B/A/2	18/A/ii
299	D	XCV	1	50	24	2/B/A/2	18/A/ii
325	D	XCV	1	40	20	2/B/A/2	18/A/ii
356	D	XCV	1	30	20	2/B/A/2	18/A/ii
356	D	XCV	1	50	38	2/B/A/2	18/A/ii
364	F	XCII	2	40	14	2/B/A/2	18/A/ii
365	F	XCII	1	70	28	2/B/A/2	18/A/ii
366	F	XCII	1	25	30	2/B/A/2	18/A/ii
367	F	XCII	1	60	24	2/B/A/2	18/A/ii
365	F	XCII	3	105	30	2/B/A/2	18/A/ii
365	F	XCII	3	75	24	2/B/A/2	18/A/ii
358	F	XCIII	1	50	24	2/B/A/2	18/A/ii
364	F	XCII	4	410	28	2/B/A/2	18/B/i
364	F	XCII	1	135	34	2/B/A/2	18/B/i
203	F	XCIII	1	50	34	2/B/A/2	18/B/i

Variant 2/D/A/1

Bowl with thick rim but without carination. All examples are late in the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	80	28	2/D/A/1	18/A/ii
4	A	CXIV	1	40	26	2/D/A/1	18/A/iii
1	A2	CXVIII	3	135	24	2/D/A/1	18/A/ii
1	A2	CXVIII	1	20	22	2/D/A/1	18/A/ii
26	B3	CIV	1	40	24	2/D/A/1	18/A/ii
324	D	XCV	2	50	18	2/D/A/1	18/A/ii
353	D	XCV	2	185	22	2/D/A/1	18/A/ii
211	D	XCV	1	130	24	2/D/A/1	18/B/ii
294	D	XCV	1	45	28	2/D/A/1	18/A/ii

Variant 2/D/B/1

Bowl with thick, almost everted rim but without carination. Steep slope to base. The earliest examples are found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	90	32	2/D/B/1	18/A/ii
4	A	CXIV	1	110	28	2/D/B/1	18/A/ii
9	B4	CVI	1	5	24	2/D/B/1	18/A/iii
1101	I2	XXVI	2	35	20	2/D/B/1	18/A/iii
880	I5	XXXIII	1	15	22	2/D/B/1	18/A/iii

Variant 2/D/C/1

Large, deep bowl with thickened rim but without carination. Steep slope to base. This is a late form within the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	35	28	2/D/C/1	18/A/iii
55	B1	XCVI	1	70	24	2/D/C/1	18/A/iii

Variant 2/D/C/2

Deep bowl with thick, rounded rim and external groove but without carination. Steep slope to base. This is a late form with the exception of nine sherds from period F.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	11	410	22	2/D/C/2	18/A/ii
4	A	CXIV	10	400	24	2/D/C/2	18/A/ii
4	A	CXIV	3	140	28	2/D/C/2	18/A/ii
4	A	CXIV	1	30	24	2/D/C/2	18/A/iii
4	A	CXIV	3	130	26	2/D/C/2	18/A/iii
4	A	CXIV	18	895	28	2/D/C/2	18/A/iii
4	A	CXIV	1	70	30	2/D/C/2	18/A/iii
4	A	CXIV	4	180	30	2/D/C/2	18/A/iii
4	A	CXIV	4	235	30	2/D/C/2	18/A/iii
4	A	CXIV	1	75	30	2/D/C/2	18/A/iii
4	A	CXIV	16	810	34	2/D/C/2	18/A/iii
4	A	CXIV	7	340	32	2/D/C/2	18/A/iii
4	A	CXIV	7	340	32	2/D/C/2	18/A/iii
4	A	CXIV	1	115	28	2/D/C/2	18/B/1
4	A	CXIV	2	70	24	2/D/C/2	18/B/ii
3	A1	CXV	1	40	26	2/D/C/2	18/A/iii

Anuradhapura: The Artefacts

3	A1	CXV	9	415	28	2/D/C/2	18/A/iii
55	B1	XCVI	1	75	26	2/D/C/2	18/A/ii
25	B1	XCVII	4	170	20	2/D/C/2	18/A/iii
24	B2	C	2	80	28	2/D/C/2	18/A/i
26	B3	CIV	1	45	24	2/D/C/2	18/A/i
16	B3	CIII	1	60	28	2/D/C/2	18/A/iii
9	B4	CVI	1	75	28	2/D/C/2	18/A/i
9	B4	CVI	3	105	32	2/D/C/2	18/A/i
9	B4	CVI	2	75	12	2/D/C/2	18/A/i
9	B4	CVI	2	110	26	2/D/C/2	18/A/i
19	B4	CX	1	70	30	2/D/C/2	18/A/i
9	B4	CVI	1	40	22	2/D/C/2	18/A/iii
5	B5	CXII	2	15	28	2/D/C/2	18/A/i
5	B5	CXII	1	55	28	2/D/C/2	18/A/iii
197	D	XCV	1	55	26	2/D/C/2	18/A/i
214	D	XCV	1	55	28	2/D/C/2	18/A/i
215	D	XCV	1	30	24	2/D/C/2	18/A/i
254	D	XCV	1	10	20	2/D/C/2	18/A/i
269	D	XCV	1	30	18	2/D/C/2	18/A/i
271	D	XCV	1	45	24	2/D/C/2	18/A/i
272	D	XCV	3	135	24	2/D/C/2	18/A/i
273	D	XCV	1	30	20	2/D/C/2	18/A/i
289	D	XCV	1	35	26	2/D/C/2	18/A/i
299	D	XCV	1	35	24	2/D/C/2	18/A/i
158	D	XCV	1	55	30	2/D/C/2	18/A/i
272	D	XCV	1	30	20	2/D/C/2	18/A/i
158	D	XCV	5	245	24	2/D/C/2	18/A/iii
217	D	XCV	1	50	28	2/D/C/2	18/A/iii
252	D	XCV	1	40	28	2/D/C/2	18/A/iii
254	D	XCV	1	30	22	2/D/C/2	18/A/iii
255	D	XCV	1	50	22	2/D/C/2	18/A/iii
283	D	XCV	1	60	24	2/D/C/2	18/A/iii
56	D	XCV	1	105	24	2/D/C/2	18/A/iii
273	D	XCV	1	40	22	2/D/C/2	18/B/i
158	D	XCV	4	270	28	2/D/C/2	18/B/i
287	D	XCV	1	55	28	2/D/C/2	18/B/i
365	F	XCII	1	50	34	2/D/C/2	18/A/i
367	F	XCII	1	50	24	2/D/C/2	18/A/i
367	F	XCII	2	75	18	2/D/C/2	18/A/i
200	F	XCIII	1	35	20	2/D/C/2	18/A/i
364	F	XCII	1	45	20	2/D/C/2	18/A/iii
366	F	XCII	1	20	30	2/D/C/2	18/A/iii
367	F	XCII	1	65	26	2/D/C/2	18/A/iii
363	F	XCIII	1	25	20	2/D/C/2	18/A/iii

Variants 2/E/A/1 and 2/F/A/1

Bowl with thickened, pointed lip. Form 2/E/A/1's rim is more rolled, almost everted. Examples were encountered from period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
294	D	XCV	1	65	30	2/E/A/1	18/A/iii
961	I4	XXX	1	20	18	2/E/A/1	18/A/iii
961	I4	XXX	1	55	26	2/E/A/1	18/A/iii
4	A	CXIV	1	35	22	2/E/A/1	18/B/i
4	A	CXIV	1	85	24	2/F/A/1	18/A/iii
4	A	CXIV	1	35	24	2/F/A/1	18/A/iii

Unglazed Ceramics

1101	I2	XXVI	8	405	22	2/F/A/1	18/A/iii
961	I4	XXX	1	30	24	2/F/A/1	16/B/i

Variant 2/F/B/1

Deep bowl with thickened, pointed lip. The majority of examples were encountered in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	205	22	2/F/B/1	18/A/iii
4	A	CXIV	2	155	22	2/F/B/1	18/A/iii
4	A	CXIV	1	60	22	2/F/B/1	18/A/iii
4	A	CXIV	1	70	24	2/F/B/1	18/A/iii
9	B4	CVI	1	115	24	2/F/B/1	18/A/iii
256	D	XCV	1	45	18	2/F/B/1	18/A/ii
158	D	XCV	1	20	34	2/F/B/1	18/A/iii
356	D	XCV	1	120	38	2/F/B/1	18/B/ii
200	F	XCIII	1	30	26	2/F/B/1	18/A/iii
203	F	XCIII	1	45	24	2/F/B/1	18/B/ii
424	G5	XCI	1	50	26	2/F/B/1	18/A/ii
1163	I1	XXIV	1	40	32	2/F/B/1	18/A/iii
977	I3	XXVIII	4	175	18	2/F/B/1	18/A/iii
894	I4	XXXII	1	15	18	2/F/B/1	18/A/ii
961	I4	XXX	2	70	22	2/F/B/1	18/A/iii
961	I4	XXX	1	40	26	2/F/B/1	18/B/ii
729	I8	LIII	1	205	44	2/F/B/1	16/B/v
729	I8	LIII	1	50	44	2/F/B/1	16/B/v

Variant 2/F/C/1

Deep bowl vessel with thickened, pointed lip. The earliest examples were encountered in period J, but they are very well represented in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	30	24	2/F/C/1	16/B/ii
4	A	CXIV	1	75	24	2/F/C/1	16/B/ii
4	A	CXIV	1	25	26	2/F/C/1	16/B/iii
4	A	CXIV	2	70	20	2/F/C/1	16/B/iii
4	A	CXIV	1	45	24	2/F/C/1	16/B/iii
4	A	CXIV	1	50	34	2/F/C/1	16/B/iii
4	A	CXIV	3	165	36	2/F/C/1	16/B/iii
4	A	CXIV	1	45	28	2/F/C/1	18/A/iii
4	A	CXIV	1	60	22	2/F/C/1	18/A/iii
4	A	CXIV	1	20	22	2/F/C/1	18/A/iii
4	A	CXIV	1	50	30	2/F/C/1	18/A/iii
4	A	CXIV	1	100	16	2/F/C/1	18/A/iii
4	A	CXIV	1	40	26	2/F/C/1	18/A/iii
4	A	CXIV	2	45	26	2/F/C/1	18/A/iii
3	A1	CXV	1	75	24	2/F/C/1	16/B/ii
26	B3	CIV	1	75	24	2/F/C/1	18/A/iii
9	B4	CVI	1	35	26	2/F/C/1	18/A/iii
158	D	XCV	1	35	20	2/F/C/1	18/A/ii
214	D	XCV	1	15	26	2/F/C/1	18/A/iii
204	D	XCV	1	559	24	2/F/C/1	18/A/iii
364	F	XCII	2	45	24	2/F/C/1	16/B/ii
367	F	XCII	1	60	32	2/F/C/1	16/B/iii
366	F	XCII	1	50	28	2/F/C/1	18/A/ii
355	F	XCIII	1	55	36	2/F/C/1	18/A/iii

Anuradhapura: The Artefacts

355	F	XCIII	1	55	30	2/F/C/1	18/A/ii
616	G2	LXX	1	30	24	2/F/C/1	16/B/i
634	G2	LXIX	1	60	22	2/F/C/1	18/A/i
616	G2	LXX	1	60	32	2/F/C/1	18/A/i
638	G2	LXXIII	1	55	20	2/F/C/1	18/A/i
616	G2	LXX	1	20	22	2/F/C/1	18/A/iii
638	G2	LXXIII	2	40	22	2/F/C/1	18/A/iii
630	G3	LXXVI	1	25	24	2/F/C/1	16/B/i
632	G4	LXXXIII	3	165	26	2/F/C/1	16/B/i
632	G4	LXXXIII	2	45	18	2/F/C/1	18/A/iii
425	G5	XCI	1	15	22	2/F/C/1	16/B/i
426	G5	LXXXVIII	2	25	22	2/F/C/1	18/A/iii
730	H1	LXIII	2	70	20	2/F/C/1	18/A/i
1125	I1	XXIII	1	100	30	2/F/C/1	16/B/i
1125	I1	XXIII	1	60	26	2/F/C/1	16/B/i
1124	I1	XXV	3	45	22	2/F/C/1	16/B/i
1153	I1	XXIV	2	30	14	2/F/C/1	16/B/i
1125	I1	XXIII	1	20	18	2/F/C/1	16/B/iii
1125	I1	XXIII	1	10	20	2/F/C/1	18/A/i
1125	I1	XXIII	1	20	20	2/F/C/1	18/A/i
1125	I1	XXIII	2	95	24	2/F/C/1	18/A/i
1123	I1	XXIV	1	30	20	2/F/C/1	16/B/i
1101	I2	XXVI	1	30	24	2/F/C/1	16/B/i
1101	I2	XXVI	1	120	20	2/F/C/1	16/B/ii
1101	I2	XXVI	2	50	20	2/F/C/1	16/B/iii
1101	I2	XXVI	2	65	24	2/F/C/1	18/A/i
1101	I2	XXVI	2	75	20	2/F/C/1	18/A/ii
1107	I2	XXVII	1	30	32	2/F/C/1	18/A/ii
977	I3	XXVIII	1	20	22	2/F/C/1	16/B/i
977	I3	XXVIII	16	365	20,24	2/F/C/1	16/B/i
977	I3	XXVIII	9	220	20	2/F/C/1	16/B/i
977	I3	XXVIII	1	25	22	2/F/C/1	16/B/i
1119	I3	XXIX	12	395	22,26	2/F/C/1	16/B/i
977	I3	XXVIII	4	105	22	2/F/C/1	16/B/iii
977	I3	XXVIII	2	30	26	2/F/C/1	18/A/i
977	I3	XXVIII	1	25	20	2/F/C/1	18/A/i
977	I3	XXVIII	1	70	22	2/F/C/1	18/A/i
1214	I3	XXIX	1	30	18	2/F/C/1	18/A/i
977	I3	XXVIII	2	150	28	2/F/C/1	18/A/ii
1119	I3	XXIX	1	75	20	2/F/C/1	18/A/ii
1119	I3	XXIX	3	100	22	2/F/C/1	18/A/ii
977	I3	XXVIII	2	125	20	2/F/C/1	18/B/i
977	I3	XXVIII	1	70	26	2/F/C/1	18/B/i
977	I3	XXVIII	1	20	20	2/F/C/1	18A/ii
961	I4	XXX	3	125	20	2/F/C/1	16/A/ii
1098	I4	XXXI	1	20	24	2/F/C/1	16/B/i
962	I4	XXX	4	125	28	2/F/C/1	16/B/i
961	I4	XXX	5	130	22	2/F/C/1	16/B/i
961	I4	XXX	1	20	26	2/F/C/1	16/B/i
946	I4	XXXI	1	30	22	2/F/C/1	16/B/i
963	I4	XXXI	2	45	26	2/F/C/1	16/B/i
962	I4	XXX	6	175	28	2/F/C/1	16/B/ii
961	I4	XXX	1	25	22	2/F/C/1	16/B/ii
964	I4	XXXII	3	50	24	2/F/C/1	16/B/ii
961	I4	XXX	1	10	22	2/F/C/1	18/A/i
961	I4	XXX	2	40	22	2/F/C/1	18/A/i
964	I4	XXXII	1	30	22	2/F/C/1	18/A/i

Unglazed Ceramics

961	14	XXX	2	45	24	2/F/C/1	18/A/ii
964	14	XXXII	1	45	26	2/F/C/1	18/A/iii
880	15	XXXIII	2	40	20	2/F/C/1	16/B/i
880	15	XXXIII	1	30	20	2/F/C/1	16/B/i
880	15	XXXIII	2	95	28	2/F/C/1	16/B/i
880	15	XXXIII	2	40	20	2/F/C/1	16/B/i
880	15	XXXIII	4	50	26	2/F/C/1	16/B/i
880	15	XXXIII	1	40	20	2/F/C/1	18/A/i
880	15	XXXIII	2	65	20	2/F/C/1	18/A/iii
1206	16	XXXVI	2	40	18	2/F/C/1	16/B/i
834	16	XXXVII	1	130	26	2/F/C/1	16/B/i
831	16	XXXIX	3	60	24	2/F/C/1	16/B/i
831	16	XXXIX	4	115	25	2/F/C/1	16/B/i
850	16	XL	4	200	24	2/F/C/1	16/B/i
1106	16	XXXVI	1	25	18	2/F/C/1	16/B/iii
1206	16	XXXVI	1	10	18	2/F/C/1	16/B/ii
860	16	XXXVI	1	15	22	2/F/C/1	18/A/i
831	16	XXXIX	3	70	22	2/F/C/1	18/A/i
1106	16	XXXVI	4	90	24	2/F/C/1	18/A/iii
834	16	XXXVII	1	30	20	2/F/C/1	18/A/iii
834	16	XXXVII	1	40	24	2/F/C/1	18/A/iii
850	16	XL	5	125	20-24	2/F/C/1	18/A/iii
837	17	XXXV	1	35	24	2/F/C/1	16/B/i
837	17	XXXV	5	130	24	2/F/C/1	16/B/i
837	17	XXXV	1	20	26	2/F/C/1	16/B/i
837	17	XXXV	1	40	26	2/F/C/1	16/B/i
811	17	XLIV	1	45	24	2/F/C/1	16/B/i
780	17	XLIV	1	40	24	2/F/C/1	16/B/i
791	17	XLVII	2	20	22	2/F/C/1	16/B/i
843	17	XLII	1	20	22	2/F/C/1	16/B/iii
837	17	XXXV	1	25	24	2/F/C/1	18/A/i
790	17	XLVII	1	30	22	2/F/C/1	18/A/i
791	17	XLVII	2	35	18	2/F/C/1	18/A/iii
788	18	LIII	2	50	26	2/F/C/1	16/B/i
788	18	LIII	2	35	24	2/F/C/1	16/B/i
728	18	LIV	2	80	28	2/F/C/1	16/B/i
768	18	LX	1	15	20	2/F/C/1	16/B/i
767	18	LX	2	85	28	2/F/C/1	16/B/i
767	18	LX	1	30	28	2/F/C/1	16/B/i
729	18	LIII	1	10	24	2/F/C/1	16/B/iii
768	18	LX	1	25	22	2/F/C/1	18/A/i
1473	J3	XVII	1	35	18	2/F/C/1	18/A/i
1172	J5	XXII	1	15	22	2/F/C/1	18/A/iii

Variant 2/F/C/2

Deep bowl with thickened, pointed lip and external grooves. The earliest examples were recovered from periods I and H.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	110	24	2/F/C/2	18/A/i
4	A	CXIV	1	40	22	2/F/C/2	18/A/iii
727	H	LXIV	1	40	24	2/F/C/2	18/A/i
1101	I2	XXVI	1	80	22	2/F/C/2	18/A/iii
834	16	XXXVII	1	35	10	2/F/C/2	18/A/i
791	17	XLVII	1	50	28	2/F/C/2	18/A/i

Variant 2/G/A/1

Shallow bowl with high carination on body. With the exception of single sherds in periods F and K, most

examples appear late in the sequence. The presence of a sherd in K1 is somewhat puzzling.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	45	22	2/G/A/1	18/A/i
4	A	CXIV	1	30	20	2/G/A/1	18/A/i
4	A	CXIV	1	20	22	2/G/A/1	18/A/i
4	A	CXIV	4	185	28	2/G/A/1	18/A/i
4	A	CXIV	1	30	24	2/G/A/1	18/A/iii
4	A	CXIV	2	75	24	2/G/A/1	18/A/iii
4	A	CXIV	1	30	24	2/G/A/1	18/A/iii
4	A	CXIV	1	35	26	2/G/A/1	18/A/iii
4	A	CXIV	1	45	22	2/G/A/1	18/A/iii
3	A1	CXV	1	50	28	2/G/A/1	18/B/i
1	A2	CXVIII	1	35	22	2/G/A/1	18/A/i
25	B1	XCVII	1	20	18	2/G/A/1	18/A/i
25	B1	XCVII	4	75	18	2/G/A/1	18/A/iii
27	B2	C	1	30	28	2/G/A/1	18/A/i
27	B2	C	1	40	28	2/G/A/1	18/A/i
19	B4	CX	1	15	16	2/G/A/1	18/A/i
9	B4	CVI	1	30	22	2/G/A/1	18/A/iii
253	D	XCV	1	25	20	2/G/A/1	18/A/i
366	F	XCII	2	55	24	2/G/A/1	18/A/i
1854	K1	V	1	20	22	2/G/A/1	18/A/i

Variant 2/H/A/1 and 2/H/A/2

Shallow bowl with low carination on body. Variant 2/H/A/2 is differentiated by the presence of external

grooves. Both forms appear first in period I, but most examples were found in C, D & E and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	35	26	2/H/A/1	16/B/i
4	A	CXIV	1	105	14	2/H/A/1	18/A/i
4	A	CXIV	1	20	22	2/H/A/1	18/A/iii
325	D	XCV	2	85	22	2/H/A/1	18/A/i
158	D	XCV	1	80	18	2/H/A/1	18/A/iii
158	D	XCV	5	185	22	2/H/A/1	18/A/iii
325	D	XCV	1	95	22	2/H/A/1	18/B/i
203	F	XCIII	1	250	36	2/H/A/1	18/B/i
962	I4	XXX	1	40	22	2/H/A/1	18/A/iii
880	I5	XXXIII	1	10	20	2/H/A/1	16/B/iii
4	A	CXIV	1	50	14	2/H/A/2	18/A/i
1125	I1	XXIII	1	15	30	2/H/A/2	18/A/iii

Variant 2/I/A/1

Shallow bowl grooved externally on upper belly. It appears to be a late form, having only been found in periods A and C, D & E.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	15	20	2/I/A/1	18/A/iii
4	A	CXIV	1	15	24	2/I/A/1	18/A/iii
4	A	CXIV	1	50	18	2/I/A/1	18/A/iii
263	C	XCV	1	80	18	2/I/A/1	18/A/iii
168	D	XCV	1	35	14	2/I/A/1	18/A/i
285	D	XCV	1	45	20	2/I/A/1	18/A/i

Variant 2/I/A/2

Shallow bowl with beading at top of belly. It appears to be a late form, having only been found in periods A, B and C, D & E.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	55	16	2/I/A/2	18/A/ii
9	B4	CVI	1	40	24	2/I/A/2	18/A/iii
299	D	XCV	1	35	20	2/I/A/2	18/A/iii

Variant 2/I/A/3

Shallow bowl with step at neck and slight eversion to lip. It appears to be a late form, having only been found in periods A, B and C, D & E.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	40	14	2/I/A/3	18/A/ii
4	A	CXIV	1	35	22	2/I/A/3	18/A/ii
4	A	CXIV	3	80	18	2/I/A/3	18/A/ii
4	A	CXIV	1	30	16	2/I/A/3	18/A/iii
4	A	CXIV	1	30	24	2/I/A/3	18/A/iii
4	A	CXIV	1	25	14	2/I/A/3	18/A/iii
3	A1	CXV	1	75	22	2/I/A/3	18/A/iii
1	A2	CXVIII	1	30	14	2/I/A/3	18/A/iii
55	B1	XCVI	1	30	24	2/I/A/3	18/A/iii
55	B1	XCVI	1	50	22	2/I/A/3	18/A/iii
25	B1	XCVII	1	50	18	2/I/A/3	18/A/iii
25	B1	XCVII	1	55	24	2/I/A/3	18/A/iii
51	B1	XCIX	2	70	28	2/I/A/3	18/A/iii
24	B2	C	1	35	22	2/I/A/3	18/A/ii
27	B2	C	1	40	22	2/I/A/3	18/A/iii
14	B3	CII	1	45	24	2/I/A/3	18/A/iii
26	B3	CIIV	5	220	24	2/I/A/3	18/A/iii
9	B4	CVI	2	100	22	2/I/A/3	18/A/ii
9	B4	CVI	2	110	18	2/I/A/3	18/B/ii
17	B5	CXIII	2	95	16	2/I/A/3	18/A/iii
17	B5	CXIII	1	10	24	2/I/A/3	18/A/iii
263	C	XCV	1	45	26	2/I/A/3	18/A/ii
263	C	XCV	1	45	16	2/I/A/3	18/A/iii
158	D	XCV	2	55	18	2/I/A/3	18/A/ii
272	D	XCV	1	110	26	2/I/A/3	18/A/ii
284	D	XCV	1	60	22	2/I/A/3	18/A/ii
256	D	XCV	1	55	22	2/I/A/3	18/A/ii
272	D	XCV	1	75	20	2/I/A/3	18/A/ii
158	D	XCV	1	35	12	2/I/A/3	18/A/iii
158	D	XCV	2	85	16	2/I/A/3	18/A/iii
193	D	XCV	1	40	12	2/I/A/3	18/A/iii
205	D	XCV	1	30	14	2/I/A/3	18/A/iii
253	D	XCV	1	50	22	2/I/A/3	18/A/iii
284	D	XCV	2	75	20	2/I/A/3	18/A/iii
325	D	XCV	3	95	24	2/I/A/3	18/A/iii

6.3.2.3 Form 3: Small bowl or atili

Form 3 is a small bowl with a mouth wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *atili*, which is used for

cooking curries (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169) [Fig. 6.14].

Variant 3/A/A/1

Very small, shallow bowl with step at neck and slight eversion to lip. This form also has a groove to the upper part of the body. It appears only to be an early form, first

appearing in phase J5 and not continuing beyond I7, making it a very useful chronological marker.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	20	18	3/A/A/1	16/B/i
1125	I1	XXIII	1	20	18	3/A/A/1	16/B/iii
1125	I1	XXIII	3	50	18	3/A/A/1	18/A/iii
1124	I1	XXV	1	15	16	3/A/A/1	18/A/iii
1101	I2	XXVI	3	50	18	3/A/A/1	16/B/iii
1116	I2	XXVII	1	25	12	3/A/A/1	16/B/iii
977	I3	XXVIII	2	35	18	3/A/A/1	16/B/i
977	I3	XXVIII	1	15	14	3/A/A/1	16/B/i
977	I3	XXVIII	1	10	18	3/A/A/1	16/B/i
977	I3	XXVIII	1	15	18	3/A/A/1	16/B/iii
977	I3	XXVIII	1	20	22	3/A/A/1	16/B/iii
977	I3	XXVIII	1	15	16	3/A/A/1	18/A/iii
977	I3	XXVIII	1	20	14	3/A/A/1	18/A/iii
962	I4	XXX	1	15	20	3/A/A/1	16/B/i
961	I4	XXX	1	10	16	3/A/A/1	16/B/i
970	I4	XXXI	1	20	24	3/A/A/1	16/B/i
914	I4	XXXII	1	25	18	3/A/A/1	16/B/i
970	I4	XXXI	1	15	14	3/A/A/1	16/B/iii
961	I4	XXX	1	15	12	3/A/A/1	18/A/iii
970	I4	XXXI	1	15	14	3/A/A/1	18/A/iii
880	I5	XXXIII	1	20	20	3/A/A/1	18/A/iii
880	I5	XXXIII	1	15	18	3/A/A/1	18/A/iii
1383	I6	XXXVI	1	30	16	3/A/A/1	18/A/i
845	I7	XLIV	1	10	12	3/A/A/1	18/A/iii
1172	J5	XXII	1	20	26	3/A/A/1	18/A/iii

Variant 3/B/A/1

Very small, shallow bowl with step at neck and very slight eversion to flat lip. Like Form 3/A/A/1, it also

appears only to be an early form, first appearing in phase J4, with only two stray sherds in periods F and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
365	F	XCII	1	15	16	3/B/A/1	16/B/i
630	G3	LXXVI	1	10	12	3/B/A/1	16/B/i
1125	I1	XXIII	1	20	18	3/B/A/1	16/B/i
1125	I1	XXIII	1	15	20	3/B/A/1	16/B/i
1119	I3	XXIX	1	10	10	3/B/A/1	18/A/iii
729	I8	LIII	1	10	16	3/B/A/1	16/B/i
1295	J4	XIX	1	20	16	3/B/A/1	16/B/i

6.3.2.4 Form 4: Bowl or atili

Form 4 is a bowl with a mouth wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *atili*, used for cooking

curries (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169) (Fig. 6.14).

Variant 4/A/A/1

Form 4 is a rim of a shallow bowl and variant 4/A/A/1 has a thin body. This form is chronologically significant

as it first appears at the end of period K and occurs only in periods J and I.

Unglazed Ceramics

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
962	I4	XXX	1	15	16	4/A/A/1	18/A/iii
880	I5	XXXIII	1	10	12	4/A/A/1	16/B/iii
850	I6	XL	1	10	22	4/A/A/1	16/B/iii
837	I7	XXXV	2	40	22	4/A/A/1	18/A/iii
788	I8	LIII	2	55	26	4/A/A/1	16/B/ii
1473	J3	XVII	1	20	16	4/A/A/1	18/A/iii
1361	J3	XVII	1	30	24	4/A/A/1	18/A/iii
1175	J4	XVIII	1	30	22	4/A/A/1	16/B/iii
1175	J4	XVIII	1	35	26	4/A/A/1	18/A/ii
1175	J4	XVIII	2	80	22	4/A/A/1	18/A/ii
1172	J5	XXII	1	90	28	4/A/A/1	16/B/ii
1172	J5	XXII	2	45	32	4/A/A/1	16/B/ii
1175	J5	XVIII	4	85	22	4/A/A/1	18/A/ii
1172	J5	XXII	7	215	30	4/A/A/1	18/A/iii
1615	K3	X	1	10	20	4/A/A/1	18/A/iii

Variant 4/A/A/2

Form 4 is a rim of a shallow bowl, and variant 4/A/A/2 has a thin body and slightly thickened rim. This form is

also chronologically significant as clusters around periods I and J with some stray finds in later periods.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	15	24	4/A/A/2	16/B/ii
4	A	CXIV	1	15	22	4/A/A/2	16/B/iii
25	B1	XCVII	1	30	28	4/A/A/2	18/A/ii
9	B4	CVI	1	20	24	4/A/A/2	18/A/ii
294	D	XCV	1	15	22	4/A/A/2	16/B/ii
324	D	XCV	1	20	24	4/A/A/2	18/A/ii
355	F	XCIII	1	55	22	4/A/A/2	18/A/iii
616	G2	LXX	2	20	22	4/A/A/2	18/A/ii
416	G5	XCI	1	10	30	4/A/A/2	18/A/ii
1125	I1	XXIII	1	65	26	4/A/A/2	16/B/ii
970	I4	XXXI	1	20	24	4/A/A/2	18/A/iii
1206	I6	XXXVI	1	25	26	4/A/A/2	16/B/ii
1206	I6	XXXVI	1	20	18	4/A/A/2	16/B/iii
1206	I6	XXXVI	1	20	26	4/A/A/2	18/A/ii
834	I6	XXXVII	1	40	22	4/A/A/2	18/A/iii
837	I7	XXXV	6	160	24	4/A/A/2	16/B/ii
752	I7	XLI	1	10	22	4/A/A/2	16/B/ii
791	I7	XLVII	1	10	22	4/A/A/2	16/B/ii
837	I7	XXXV	2	30	18	4/A/A/2	18/A/iii
767	I8	LX	1	55	26	4/A/A/2	18/A/ii
1485	J2	XV	1	45	22	4/A/A/2	16/B/ii
1191	J5	XXI	1	40	18	4/A/A/2	18/A/iii

Variant 4/A/A/3

Form 4 is a rim of a shallow bowl and variant 4/A/A/3 has a thin body and slightly thickened rim internally.

This form is chronologically significant as it clusters tightly around periods I, J and K.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	20	16	4/A/A/3	16/B/ii
1125	I1	XXIII	1	20	20	4/A/A/3	18/A/iii
1125	I1	XXIII	1	20	22	4/A/A/3	18/A/iii

Anuradhapura: The Artefacts

962	I4	XXX	1	15	14	4/A/A/3	18/A/ii
1382	J3	XVII	2	30	22	4/A/A/3	16/B/ii
1476	J3	XVII	1	20	16	4/A/A/3	18/A/ii
1382	J3	XVII	1	25	22	4/A/A/3	18/A/ii
1854	K1	V	1	25	10	4/A/A/3	18/A/ii

Variant 4/B/A/1

Form 4 is a rim of a shallow bowl and variant 4/B/A/1 appears very similar to 4/A/A/2. This form is chronologically significant as it is very tightly clustered

in periods I and J with only four stray sherds in higher levels.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	18	4/B/A/1	16/B/ii
56	D	XCV	1	25	1	4/B/A/1	18/A/ii
616	G2	LXX	1	25	28	4/B/A/1	16/B/i
616	G2	LXX	1	10	28	4/B/A/1	18/A/ii
1125	I1	XXIII	2	30	22	4/B/A/1	16/B/i
1125	I1	XXIII	1	15	14	4/B/A/1	16/B/i
1125	I1	XXIII	5	95	22	4/B/A/1	16/B/i
1127	I1	XXIV	1	30	24	4/B/A/1	16/B/i
1125	I1	XXIII	3	20	22	4/B/A/1	16/B/ii
1125	I1	XXIII	1	20	22	4/B/A/1	16/B/ii
1125	I1	XXIII	2	30	22	4/B/A/1	16/B/ii
1125	I1	XXIII	1	25	18	4/B/A/1	18/A/i
1125	I1	XXIII	4	70	22	4/B/A/1	18/A/i
1124	I1	XXV	2	55	20	4/B/A/1	18/A/i
1124	I1	XXV	1	15	16	4/B/A/1	18/A/i
1125	I1	XXIII	1	20	18	4/B/A/1	18/A/ii
1125	I1	XXIII	2	35	24	4/B/A/1	18/A/ii
1125	I1	XXIII	2	40	18	4/B/A/1	18/A/ii
1125	I1	XXIII	1	40	26	4/B/A/1	18/A/ii
1125	I1	XXIII	4	95	16	4/B/A/1	18/A/ii
1149	I1	XXIV	1	15	18	4/B/A/1	18/A/ii
1127	I1	XXIV	1	30	22	4/B/A/1	18/A/ii
1101	I2	XXVI	1	15	14	4/B/A/1	16/B/i
1101	I2	XXVI	5	80	22	4/B/A/1	16/B/i
1101	I2	XXVI	1	45	24	4/B/A/1	18/A/i
1101	I2	XXVI	1	55	34	4/B/A/1	18/A/i
1120	I2	XXVII	6	235	18	4/B/A/1	18/A/i
1120	I2	XXVII	3	40	18	4/B/A/1	18/A/ii
977	I3	XXVIII	2	45	22	4/B/A/1	16/B/ii
977	I3	XXVIII	6	100	20	4/B/A/1	16/B/ii
1119	I3	XXIX	1	125	18	4/B/A/1	16/B/ii
1119	I3	XXIX	1	15	20	4/B/A/1	18/A/i
977	I3	XXVIII	1	70	20	4/B/A/1	18/A/ii
977	I3	XXVIII	1	25	16	4/B/A/1	18/A/ii
977	I3	XXVIII	2	70	20	4/B/A/1	18/A/ii
1119	I3	XXIX	2	35	20	4/B/A/1	18/A/ii
1214	I3	XXIX	1	15	22	4/B/A/1	18/A/ii
962	I4	XXX	1	20	22	4/B/A/1	16/B/i
961	I4	XXX	2	20	26	4/B/A/1	16/B/i
961	I4	XXX	3	45	18	4/B/A/1	16/B/i
961	I4	XXX	1	40	24	4/B/A/1	16/B/ii
997	I4	XXXI	1	10	18	4/B/A/1	16/B/ii
961	I4	XXX	1	25	26	4/B/A/1	18/A/i
962	I4	XXX	2	40	22	4/B/A/1	18/A/i

Unglazed Ceramics

914	I4	XXXII	2	80	30	4/B/A/1	18/A/iii
961	I4	XXX	1	15	10	4/B/A/1	18/A/iii
962	I4	XXX	1	20	22	4/B/A/1	18/A/iii
970	I4	XXXI	1	15	16	4/B/A/1	18/A/iii
964	I4	XXXII	1	45	22	4/B/A/1	18/A/iii
1206	I6	XXXVI	1	30	22	4/B/A/1	16/B/ii
850	I6	XL	5	50	20	4/B/A/1	16/B/ii
834	I6	XXXVII	1	10	32	4/B/A/1	18/A/iii
791	I7	XLVII	2	15	18	4/B/A/1	16/B/ii
791	I7	XLVII	1	25	22	4/B/A/1	16/B/ii
729	I8	LIII	1	40	28	4/B/A/1	18/A/ii
788	I8	LIII	1	15	16	4/B/A/1	18/A/iii
1487	J2	XV	1	25	26	4/B/A/1	18/A/ii
1475	J3	XVII	2	70	20	4/B/A/1	18/A/iii
1475	J3	XVII	1	25	18	4/B/A/1	18/A/iii
1216	J4	XIX	2	20	22	4/B/A/1	16/B/ii
1215	J4	XIX	1	20	20	4/B/A/1	16/B/ii
1290	J4	XIX	1	15	26	4/B/A/1	16/B/ii
1290	J4	XIX	1	10	24	4/B/A/1	16/B/ii
1216	J4	XIX	1	25	14	4/B/A/1	16/B/iii
1175	J4	XVIII	3	100	24	4/B/A/1	18/A/ii
1215	J4	XIX	2	30	18	4/B/A/1	18/A/ii
1216	J4	XIX	1	25	22	4/B/A/1	18/A/iii
1216	J4	XIX	1	40	34	4/B/A/1	18/A/iii
1290	J4	XIX	1	10	20	4/B/A/1	18/A/iii
1290	J4	XIX	2	25	20	4/B/A/1	18/A/iii
1218	J4	XIX	1	30	24	4/B/A/1	18/A/iii
1216	J4	XIX	1	20	34	4/B/A/1	18/A/iii
1172	J5	XXII	1	20	18	4/B/A/1	18/A/iii
1172	J5	XXII	1	20	23	4/B/A/1	18/A/iii

Variant 4/B/A/2

Form 4 is a rim of a shallow bowl and variant 4/B/A/2 has a slightly thickened rim internally. This form is chronologically significant as it is very tightly clustered

in periods I and J with only one stray sherd in higher levels.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
51	B1	XCIX	1	50	24	4/B/A/2	18/A/ii
1149	I1	XXIV	1	20	22	4/B/A/2	18/A/ii
1125	I1	XXIII	1	65	20	4/B/A/2	18/A/iii
1125	I1	XXIII	1	15	20	4/B/A/2	18/A/iii
1125	I1	XXIII	12	265	22	4/B/A/2	18/A/iii
1101	I2	XXVI	4	150	14	4/B/A/2	18/A/ii
1101	I2	XXVI	6	180	22,26	4/B/A/2	18/A/iii
1101	I2	XXVI	6	195	22	4/B/A/2	18/A/iii
977	I3	XXVIII	7	125	18	4/B/A/2	16/B/iii
977	I3	XXVIII	10	320	22	4/B/A/2	18/A/iii
977	I3	XXVIII	1	10	22	4/B/A/2	18/A/iii
977	I3	XXVIII	3	70	20	4/B/A/2	18/A/iii
977	I3	XXVIII	1	85	24	4/B/A/2	18/B/ii
961	I4	XXX	1	10	22	4/B/A/2	16/B/ii
962	I4	XXX	4	100	18	4/B/A/2	18/A/iii
961	I4	XXX	1	30	22	4/B/A/2	18/A/iii
880	I5	XXXIII	1	30	20	4/B/A/2	18/A/iii
880	I5	XXXIII	3	60	18	4/B/A/2	18/A/iii
880	I5	XXXIII	1	30	18	4/B/A/2	18/A/iii

Anuradhapura: The Artefacts

1206	I6	XXXVI	1	40	20	4/B/A/2	18/A/ii
791	I7	XLVII	1	20	20	4/B/A/2	18/A/iii
1485	J2	XV	1	125	16	4/B/A/2	18/A/i
1362	J3	XVII	1	30	12	4/B/A/2	18/A/iii
1290	J4	XIX	1	75	26	4/B/A/2	18/A/iii
1290	J4	XIX	1	20	27	4/B/A/2	18/A/iii
1195	J5	XXI	1	50	28	4/B/A/2	18/A/ii
1172	J5	XXII	1	15	22	4/B/A/2	18/A/iii

Variant 4/B/A/3

Form 4 is a rim of a shallow bowl and variant 4/B/A/3 has a slightly thickened rim internally. It has a more vertical profile than 4/B/A/2. This form is

chronologically significant as it is only clustered in periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	2	40	22	4/B/A/3	16/B/i
1125	I1	XXIII	3	55	18	4/B/A/3	16/B/iii
1125	I1	XXIII	1	35	26	4/B/A/3	16/B/v
1125	I1	XXIII	1	20	16	4/B/A/3	18/A/ii
1127	I1	XXIV	1	20	16	4/B/A/3	18/A/iii
1125	I1	XXIII	1	50	28	4/B/A/3	18/B/i
1101	I2	XXVI	1	15	22	4/B/A/3	16/B/i
977	I3	XXVIII	4	140	28	4/B/A/3	16/B/iii
977	I3	XXVIII	3	145	20	4/B/A/3	18/A/iii
977	I3	XXVIII	1	20	20	4/B/A/3	18/A/iii
977	I3	XXVIII	2	140	22	4/B/A/3	18/B/i
961	I4	XXX	1	25	22	4/B/A/3	16/B/i
970	I4	XXXI	2	35	18	4/B/A/3	16/B/iii
961	I4	XXX	1	25	20	4/B/A/3	18/A/iii
1473	J3	XVII	2	25	18	4/B/A/3	18/A/iii
1360	J3	XVII	1	15	26	4/B/A/3	16/B/iii
1359	J3	XVII	2	75	28	4/B/A/3	18/A/ii
1215	J4	XIX	1	25	28	4/B/A/3	16/B/i
1175	J4	XVIII	1	30	24	4/B/A/3	18/A/i
1216	J4	XIX	1	15	26	4/B/A/3	18/A/ii
1175	J4	XVIII	1	20	24	4/B/A/3	18/A/iii
1175	J4	XVIII	1	45	16	4/B/A/3	18/A/iii
1195	J5	XXI	1	15	20	4/B/A/3	18/A/iii
1172	J5	XXII	1	20	32	4/B/A/3	18/A/iii

Variant 4/C/A/1

Form 4 is a rim of a shallow bowl and variant 4/C/A/1 has a slightly thickened rim internally, forming almost a

T-profile. This form is chronologically significant as it clusters in periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	22	4/C/A/1	16/B/iii
367	F	XCII	1	25	26	4/C/A/1	18/A/iii
1214	I3	XXIX	1	20	18	4/C/A/1	18/A/ii
961	I4	XXX	1	10	10	4/C/A/1	18/A/iii
961	I4	XXX	1	35	22	4/C/A/1	18/A/iii
1294	I6	XXXVI	1	40	30	4/C/A/1	18/A/ii
834	I6	XXXVII	1	20	20	4/C/A/1	18/A/ii
837	I7	XXXV	1	20	26	4/C/A/1	18/A/iii
837	I7	XXXV	1	25	24	4/C/A/1	18/A/iii
812	I7	XLIV	1	10	14	4/C/A/1	18/A/iii

Unglazed Ceramics

1473	J3	XVII	1	25	20	4/C/A/1	18/A/iii
1216	J4	XIX	1	30	30	4/C/A/1	18/A/iii
1292	J4	XIX	2	50	22	4/C/A/1	18/A/iii
1290	J4	XIX	1	10	20	4/C/A/1	18/A/iii
1191	J5	XXI	1	30	24	4/C/A/1	18/A/ii
1172	J5	XXII	1	35	20	4/C/A/1	18/A/iii
1174	J5	XX	1	50	22	4/C/A/1	18/B/ii

Variant 4/D/A/1

Form 4 is a rim of a shallow bowl, and variant 4/D/A/1 has a relatively thin body and a form akin to the Sinhalese *atili* vessel. This form first appears at the end

of period J and is found in large numbers in periods I and G, with less significant counts in period F and younger.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	40	22	4/D/A/1	16/B/ii
3	A1	CXV	1	15	18	4/D/A/1	18/A/iii
25	B1	XCVII	1	30	24	4/D/A/1	16/B/ii
25	B1	XCVII	1	45	24	4/D/A/1	16/B/iii
25	B1	XCVII	1	55	28	4/D/A/1	16/B/iii
9	B4	CVI	1	20	22	4/D/A/1	18/A/iii
263	C	XCV	1	30	22	4/D/A/1	16/B/ii
259	D	XCV	1	15	20	4/D/A/1	16/B/ii
324	D	XCV	1	15	16	4/D/A/1	16/B/iii
365	F	XCII	1	10	30	4/D/A/1	16/B/ii
364	F	XCII	3	85	30	4/D/A/1	16/B/iii
364	F	XCII	1	20	22	4/D/A/1	18/A/iii
367	F	XCII	1	75	34	4/D/A/1	18/A/iii
367	F	XCII	1	159	16	4/D/A/1	18/A/iii
367	F	XCII	2	55	24	4/D/A/1	18/A/iii
634	G2	LXIX	1	40	26	4/D/A/1	16/B/ii
634	G2	LXIX	1	15	20	4/D/A/1	16/B/ii
616	G2	LXX	3	45	24	4/D/A/1	16/B/ii
616	G2	LXX	1	15	26	4/D/A/1	16/B/ii
628	G2	LXXIII	1	15	24	4/D/A/1	16/B/ii
634	G2	LXIX	1	10	22	4/D/A/1	18/A/ii
628	G2	LXXIII	1	15	20	4/D/A/1	18/A/ii
634	G2	LXIX	1	10	18	4/D/A/1	18/A/iii
634	G2	LXIX	1	20	24	4/D/A/1	18/A/iii
638	G2	LXXIII	1	15	18	4/D/A/1	18/A/iii
491	G3	LXXVI	2	20	20	4/D/A/1	16/B/ii
496	G3	LXXVI	1	35	28	4/D/A/1	16/B/ii
630	G3	LXXVI	1	30	28	4/D/A/1	16/B/ii
632	G4	LXXXIII	6	175	24	4/D/A/1	16/B/ii
632	G4	LXXXIII	3	80	34	4/D/A/1	18/A/iii
424	G5	XCI	1	10	18	4/D/A/1	16/B/ii
416	G5	XCI	2	45	22	4/D/A/1	16/B/ii
422	G5	XCI	1	10	20	4/D/A/1	16/B/ii
437	G5	LXXXVII	1	30	24	4/D/A/1	16/B/ii
437	G5	LXXXVII	1	15	24	4/D/A/1	16/B/ii
424	G5	XCI	2	25	22	4/D/A/1	16/B/iii
440	G5	XCI	1	5	16	4/D/A/1	16/B/iii
730	H1	LXIII	2	25	22	4/D/A/1	16/B/ii
730	H1	LXIII	1	20	28	4/D/A/1	16/B/ii
730	H1	LXIII	1	10	24	4/D/A/1	16/B/ii
730	H1	LXIII	1	25	24	4/D/A/1	18/A/iii
735	H2	LXV	1	20	16	4/D/A/1	18/A/ii

Anuradhapura: The Artefacts

1119	I3	XXIX	1	40	10	4/D/A/1	18/A/iii
964	I4	XXXII	2	20	24	4/D/A/1	16/B/ii
970	I4	XXXI	1	15	22	4/D/A/1	18/A/iii
909	I4	XXXI	1	40	24	4/D/A/1	18/A/iii
880	I5	XXXIII	1	40	22	4/D/A/1	18/A/ii
880	I5	XXXIII	1	15	18	4/D/A/1	18/A/ii
831	I6	XXXIX	1	40	28	4/D/A/1	16/B/i
834	I6	XXXVII	3	40	24	4/D/A/1	16/B/ii
834	I6	XXXVII	1	35	22	4/D/A/1	16/B/ii
831	I6	XXXIX	8	140	26	4/D/A/1	16/B/ii
831	I6	XXXIX	1	10	24	4/D/A/1	16/B/ii
831	I6	XXXIX	1	10	24	4/D/A/1	16/B/iii
895	I6	XXXVI	1	15	18	4/D/A/1	18/A/i
831	I6	XXXIX	7	190	22	4/D/A/1	18/A/ii
834	I6	XXXVII	2	35	20	4/D/A/1	18/A/iii
856	I6	XXXVIII	1	40	22	4/D/A/1	18/A/iii
831	I6	XXXIX	3	50	22	4/D/A/1	18/A/iii
837	I7	XXXV	1	10	30	4/D/A/1	16/B/ii
837	I7	XXXV	3	45	22	4/D/A/1	16/B/ii
837	I7	XXXV	2	40	20	4/D/A/1	16/B/ii
812	I7	XLIV	2	45	22	4/D/A/1	16/B/ii
798	I7	XLVI	1	20	24	4/D/A/1	16/B/ii
798	I7	XLVI	1	15	22	4/D/A/1	16/B/ii
791	I7	XLVII	4	60	22	4/D/A/1	16/B/ii
791	I7	XLVII	4	65	22	4/D/A/1	16/B/ii
837	I7	XXXV	2	30	24	4/D/A/1	16/B/iii
837	I7	XXXV	1	10	30	4/D/A/1	18/A/ii
837	I7	XXXV	1	25	20	4/D/A/1	18/A/ii
790	I7	XLVII	1	15	22	4/D/A/1	18/A/ii
837	I7	XXXV	1	10	22	4/D/A/1	18/A/iii
837	I7	XXXV	1	15	22	4/D/A/1	18/A/iii
843	I7	XLII	1	40	24	4/D/A/1	18/A/iii
812	I7	XLIV	1	25	26	4/D/A/1	18/A/iii
837	I7	XXXV	2	45	14	4/D/A/1	18/A/iii
837	I7	XXXV	2	30	10	4/D/A/1	18/A/iii
788	I8	LIII	1	15	20	4/D/A/1	16/B/ii
729	I8	LIII	1	20	24	4/D/A/1	16/B/ii
729	I8	LIII	1	15	24	4/D/A/1	16/B/ii
728	I8	LIV	2	35	24	4/D/A/1	16/B/ii
768	I8	LX	2	30	20	4/D/A/1	16/B/ii
767	I8	LX	2	55	26	4/D/A/1	16/B/ii
767	I8	LX	1	15	24	4/D/A/1	16/B/ii
767	I8	LX	7	110	26	4/D/A/1	16/B/ii
729	I8	LIII	4	100	24	4/D/A/1	18/A/ii
767	I8	LX	1	20	22	4/D/A/1	18/A/ii
767	I8	LX	2	35	26	4/D/A/1	18/A/ii
767	I8	LX	1	25	28	4/D/A/1	18/A/ii
767	I8	LX	2	45	24	4/D/A/1	18/A/ii
788	I8	LIII	2	25	18	4/D/A/1	18/A/iii
729	I8	LIII	3	110	28	4/D/A/1	18/A/iii
768	I8	LX	1	15	22	4/D/A/1	18/A/iii
1407	J2	XIV	1	20	22	4/D/A/1	18/A/iii
1292	J4	XIX	3	30	14	4/D/A/1	18/A/iii

Variant 4/D/B/1

Form 4 is a rim of a shallow bowl and variant 4/D/B/1 has a relatively thick body. It also differs from 4/D/A/1

by having a more vertical profile. This form first appears at the end of period J and is found in large numbers in

Unglazed Ceramics

periods I and G, with lower counts in period F and younger.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	4	100	24	4/D/B/1	16/B/iii
4	A	CXIV	1	15	22	4/D/B/1	16/B/iii
4	A	CXIV	1	20	22	4/D/B/1	16/B/iii
4	A	CXIV	4	150	22	4/D/B/1	18/A/iii
4	A	CXIV	1	30	22	4/D/B/1	18/A/iii
4	A	CXIV	1	45	28	4/D/B/1	18/A/iii
4	A	CXIV	1	40	22	4/D/B/1	18/A/iii
4	A	CXIV	1	40	22	4/D/B/1	18/A/iii
4	A	CXIV	1	75	30	4/D/B/1	18/A/iii
4	A	CXIV	2	65	22	4/D/B/1	18/B/i
4	A	CXIV	2	40	26	4/D/B/1	18/B/i
4	A	CXIV	4	75	22	4/D/B/1	18/B/iii
4	A	CXIV	2	100	34	4/D/B/1	18/B/iii
3	A1	CXV	2	55	18	4/D/B/1	16/B/i
1	A2	CXVIII	1	25	24	4/D/B/1	16/B/iii
25	B1	XCVII	1	50	26	4/D/B/1	16/B/v
25	B1	XCVII	3	60	22	4/D/B/1	18/A/iii
25	B1	XCVII	1	70	26	4/D/B/1	18/B/i
24	B2	C	1	50	22	4/D/B/1	18/A/iii
27	B2	C	1	90	30	4/D/B/1	18/B/i
26	B3	CI	1	70	26	4/D/B/1	16/B/iii
9	B4	CVI	1	35	24	4/D/B/1	18/A/iii
5	B5	CXII	2	85	30	4/D/B/1	18/A/iii
296	D	XCV	1	25	24	4/D/B/1	16/B/i
56	D	XCV	1	30	24	4/D/B/1	16/B/iii
175	D	XCV	2	35	22	4/D/B/1	18/A/iii
190	D	XCV	2	75	20	4/D/B/1	18/A/iii
256	D	XCV	2	60	22	4/D/B/1	18/A/iii
284	D	XCV	1	15	26	4/D/B/1	18/A/iii
296	D	XCV	1	30	24	4/D/B/1	18/A/iii
299	D	XCV	1	35	14	4/D/B/1	18/A/iii
359	D	XCV	1	60	20	4/D/B/1	18/A/iii
256	D	XCV	2	65	22	4/D/B/1	18/A/iii
283	D	XCV	1	55	24	4/D/B/1	18/B/i
204	D	XCV	1	40	24	4/D/B/1	18/B/i
364	F	XCII	1	40	28	4/D/B/1	16/B/i
365	F	XCII	2	35	26	4/D/B/1	16/B/iii
358	F	XCIII	1	35	24	4/D/B/1	16/B/v
365	F	XCII	1	65	18	4/D/B/1	18/A/iii
365	F	XCII	4	105	26	4/D/B/1	18/A/iii
364	F	XCII	1	25	20	4/D/B/1	18/A/iii
365	F	XCII	5	200	28	4/D/B/1	18/A/iii
365	F	XCII	1	110	34	4/D/B/1	18/A/iii
203	F	XCIII	1	10	20	4/D/B/1	18/A/iii
358	F	XCIII	4	115	26	4/D/B/1	18/A/iii
264	F	XCIII	1	45	24	4/D/B/1	18/A/iii
366	F	XCII	1	50	36	4/D/B/1	18/B/i
364	F	XCII	1	25	24	4/D/B/1	
634	G2	LXIX	1	35	30	4/D/B/1	16/B/i
634	G2	LXIX	1	25	24	4/D/B/1	16/B/i
634	G2	LXIX	4	45	20	4/D/B/1	16/B/i
634	G2	LXIX	1	45	30	4/D/B/1	16/B/i
616	G2	LXX	1	25	22	4/D/B/1	16/B/i

Anuradhapura: The Artefacts

634	G2	LXIX	1	15	22	4/D/B/1	18/A/ii
634	G2	LXIX	1	15	24	4/D/B/1	18/A/iii
616	G2	LXX	2	50	24	4/D/B/1	18/A/iii
638	G2	LXXIII	1	15	22	4/D/B/1	18/A/iii
635	G2	LXXIII	2	35	30	4/D/B/1	18/A/iii
628	G2	LXXIII	1	25	22	4/D/B/1	18/A/iii
630	G3	LXXVI	1	35	44	4/D/B/1	16/B/ii
630	G3	LXXVI	1	20	24	4/D/B/1	16/B/ii
630	G3	LXXVI	1	25	36	4/D/B/1	16/B/ii
630	G3	LXXVI	1	15	20	4/D/B/1	16/B/iii
491	G3	LXXVI	1	35	26	4/D/B/1	18/A/ii
496	G3	LXXVI	1	20	26	4/D/B/1	18/A/ii
632	G4	LXXXIII	2	50	26	4/D/B/1	16/B/ii
632	G4	LXXXIII	3	60	26	4/D/B/1	16/B/iii
632	G4	LXXXIII	3	65	22	4/D/B/1	18/A/iii
424	G5	XCI	3	50	22	4/D/B/1	16/B/ii
424	G5	XCI	1	15	24	4/D/B/1	16/B/ii
424	G5	XCI	4	90	24	4/D/B/1	16/B/ii
425	G5	XCI	1	15	24	4/D/B/1	16/B/ii
425	G5	XCI	1	10	26	4/D/B/1	16/B/ii
416	G5	XCI	2	30	20	4/D/B/1	16/B/ii
425	G5	XCI	1	40	24	4/D/B/1	18/A/ii
424	G5	XCI	3	65	20	4/D/B/1	18/A/iii
424	G5	XCI	5	85	20	4/D/B/1	18/A/iii
424	G5	XCI	1	10	20	4/D/B/1	18/A/iii
416	G5	XCI	1	30	28	4/D/B/1	18/A/iii
416	G5	XCI	1	20	20	4/D/B/1	18/A/iii
416	G5	XCI	2	60	24	4/D/B/1	18/A/iii
416	G5	XCI	1	50	22	4/D/B/1	18/A/iii
426	G5	LXXXVIII	1	55	28	4/D/B/1	18/A/iii
416	G5	XCI	3	140	24	4/D/B/1	18/B/i
437	G5	LXXXVII	3	110	26	4/D/B/1	18/B/i
424	G5	XCI	5	260	28	4/D/B/1	18/B/ii
437	G5	LXXXVII	2	75	26	4/D/B/1	18/B/ii
730	H1	LXIII	2	60	34	4/D/B/1	18/A/ii
744	H2	LXII	2	40	24	4/D/B/1	16/B/ii
735	H2	LXV	1	25	24	4/D/B/1	18/A/iii
1131	I1	XXIV	1	20	16	4/D/B/1	18/A/iii
1101	I2	XXVI	1	60	26	4/D/B/1	18/A/iii
961	I4	XXX	1	15	24	4/D/B/1	16/B/ii
961	I4	XXX	1	5	22	4/D/B/1	16/B/ii
961	I4	XXX	1	15	16	4/D/B/1	16/B/ii
961	I4	XXX	1	15	20	4/D/B/1	16/B/ii
885	I4	XXXII	1	15	20	4/D/B/1	16/B/ii
963	I4	XXXI	1	10	20	4/D/B/1	16/B/iii
961	I4	XXX	1	15	24	4/D/B/1	18/A/ii
963	I4	XXXI	1	15	22	4/D/B/1	18/A/ii
961	I4	XXX	1	10	20	4/D/B/1	18/A/ii
963	I4	XXXI	1	10	20	4/D/B/1	18/A/iii
971	I4	XXXI	2	135	26	4/D/B/1	18/A/iii
959	I4	XXXI	1	25	28	4/D/B/1	18/A/iii
940	I4	XXXI	1	10	22	4/D/B/1	18/A/iii
932	I4	XXXI	1	20	22	4/D/B/1	18/A/iii
894	I4	XXXII	1	10	16	4/D/B/1	18/A/iii
894	I4	XXXII	1	20	22	4/D/B/1	18/A/iii
880	I5	XXXIII	2	35	20	4/D/B/1	16/B/ii
880	I5	XXXIII	2	40	38	4/D/B/1	16/B/ii

Unglazed Ceramics

880	I5	XXXIII	1	10	28	4/D/B/1	16/B/iii
880	I5	XXXIII	2	50	28	4/D/B/1	18/A/ii
880	I5	XXXIII	1	20	22	4/D/B/1	18/A/iii
880	I5	XXXIII	1	10	16	4/D/B/1	18/A/iii
880	I5	XXXIII	1	20	22	4/D/B/1	18/A/iii
866	I6	XXXVI	1	15	20	4/D/B/1	16/B/ii
860	I6	XXXVI	2	25	20	4/D/B/1	16/B/ii
834	I6	XXXVII	1	25	20	4/D/B/1	16/B/ii
850	I6	XL	6	65	20	4/D/B/1	16/B/ii
831	I6	XXXIX	3	60	22	4/D/B/1	16/B/ii
835	I6	XXXVI	2	30	22	4/D/B/1	18/A/iii
834	I6	XXXVII	5	120	20	4/D/B/1	18/A/iii
834	I6	XXXVII	3	40	16	4/D/B/1	18/A/iii
837	I7	XXXV	4	55	22	4/D/B/1	16/B/ii
837	I7	XXXV	2	25	18	4/D/B/1	16/B/ii
843	I7	XLII	1	10	18	4/D/B/1	16/B/ii
812	I7	XLIV	3	40	24	4/D/B/1	16/B/ii
837	I7	XXXV	1	15	16	4/D/B/1	18/A/ii
791	I7	XLVII	1	15	20	4/D/B/1	18/A/ii
837	I7	XXXV	11	230	26	4/D/B/1	18/A/iii
811	I7	XLIV	1	20	22	4/D/B/1	18/A/iii
824+826	I7	LII	2	30	22	4/D/B/1	18/A/iii
788	I8	LIII	2	70	30	4/D/B/1	16/B/ii
788	I8	LIII	5	65	22	4/D/B/1	16/B/ii
788	I8	LIII	1	30	16	4/D/B/1	16/B/ii
788	I8	LIII	1	55	36	4/D/B/1	18/A/ii
768	I8	LX	1	10	18	4/D/B/1	18/A/ii
767	I8	LX	2	35	22	4/D/B/1	18/A/ii
788	I8	LIII	1	60	30	4/D/B/1	18/A/iii
729	I8	LIII	1	10	20	4/D/B/1	18/A/iii
729	I8	LIII	5	135	20	4/D/B/1	18/A/iii
1361	J3	XVII	1	15	18	4/D/B/1	16/B/ii
1340	J3	XVII	1	20	20	4/D/B/1	18/A/iii
1216	J4	XIX	1	25	32	4/D/B/1	18/A/ii

Variant 4/E/A/1

Form 4 is a rim of a shallow bowl and variant 4/E/A/1 has a pointed rim. This form is heavily concentrated in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
365	F	XCII	1	40	20	4/E/A/1	18/A/iii
634	G2	LXIX	1	30	28	4/E/A/1	16/B/ii
616	G2	LXX	1	5	32	4/E/A/1	16/B/iii
1125	I1	XXIII	1	10	18	4/E/A/1	18/A/iii
1125	I1	XXIII	1	25	22	4/E/A/1	18/A/iii
1101	I2	XXVI	1	15	20	4/E/A/1	16/B/iii
977	I3	XXVIII	1	35	14	4/E/A/1	18/A/iii
961	I4	XXX	2	25	18	4/E/A/1	16/B/ii
975	I4	XXXI	1	15	16	4/E/A/1	18/A/ii
964	I4	XXXII	1	25	24	4/E/A/1	18/A/iii
894	I4	XXXII	1	15	20	4/E/A/1	18/A/iii
880	I5	XXXIII	1	10	18	4/E/A/1	18/A/ii
880	I5	XXXIII	1	15	22	4/E/A/1	18/A/iii
831	I6	XXXIX	1	15	20	4/E/A/1	16/B/ii
834	I6	XXXVII	1	15	22	4/E/A/1	18/A/ii
834	I6	XXXVII	1	10	20	4/E/A/1	18/A/iii
837	I7	XXXV	2	35	24	4/E/A/1	18/A/ii

Anuradhapura: The Artefacts

780	I7	XLIV	2	30	22	4/E/A/1	18/A/ii
791	I7	XLVII	4	45	20	4/E/A/1	18/A/ii
837	I7	XXXV	1	20	20	4/E/A/1	18/A/iii
837	I7	XXXV	4	60	24	4/E/A/1	18/A/iii
837	I7	XXXV	1	10	20	4/E/A/1	18/A/iii
788	I8	LIII	1	25	24	4/E/A/1	18/A/iii
788	I8	LIII	1	20	16	4/E/A/1	18/A/iii
767	I8	LX	1	15	22	4/E/A/1	18/A/iii
767	I8	LX	1	20	24	4/E/A/1	18/B/ii

Variant 4/F/A/1

Form 4 is a rim of a shallow bowl and variant 4/F/A/1 has a pointed rim, which is hollowed conspicuously at

base. This form first appears in period J but is heavily concentrated in periods I and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	15	22	4/F/A/1	16/B/iii
4	A	CXIV	2	30	24	4/F/A/1	16/B/iii
4	A	CXIV	1	35	24	4/F/A/1	18/A/iii
1	A2	CXVIII	1	15	20	4/F/A/1	16/B/iii
25	B1	XCVII	1	15	22	4/F/A/1	18/A/iii
27	B2	C	1	30	26	4/F/A/1	18/A/ii
263	C	XCV	1	15	22	4/F/A/1	16/B/ii
364	F	XCII	2	50	18	4/F/A/1	18/A/iii
634	G2	LXIX	1	20	22	4/F/A/1	16/B/ii
634	G2	LXIX	1	20	20	4/F/A/1	16/B/ii
634	G2	LXIX	2	25	18	4/F/A/1	16/B/ii
634	G2	LXIX	1	15	14	4/F/A/1	16/B/iii
616	G2	LXX	1	10	24	4/F/A/1	16/B/iii
634	G2	LXIX	1	20	20	4/F/A/1	18/A/ii
616	G2	LXX	1	25	30	4/F/A/1	18/A/ii
616	G2	LXX	2	30	28	4/F/A/1	18/A/iii
616	G2	LXX	1	15	18	4/F/A/1	18/A/iii
638	G2	LXXIII	2	35	26	4/F/A/1	18/A/iii
630	G3	LXXVI	1	10	20	4/F/A/1	16/B/iii
630	G3	LXXVI	2	20	22	4/F/A/1	18/A/iii
630	G3	LXXVI	1	10	22	4/F/A/1	18/A/iii
632	G4	LXXXIII	3	55	30	4/F/A/1	16/B/ii
632	G4	LXXXIII	2	30	26	4/F/A/1	16/B/iii
632	G4	LXXXIII	2	35	22	4/F/A/1	18/A/iii
424	G5	XCI	1	15	26	4/F/A/1	16/B/ii
424	G5	XCI	1	5	22	4/F/A/1	16/B/ii
416	G5	XCI	1	10	18	4/F/A/1	16/B/ii
431	G5	XCI	1	30	30	4/F/A/1	16/B/ii
416	G5	XCI	1	25	24	4/F/A/1	16/B/iii
416	G5	XCI	1	25	26	4/F/A/1	18/A/ii
416	G5	XCI	1	35	28	4/F/A/1	18/A/ii
977	I3	XXVIII	1	15	16	4/F/A/1	18/A/iii
905	I4	XXXII	2	50	22	4/F/A/1	16/B/ii
964	I4	XXXII	1	20	26	4/F/A/1	18/A/ii
914	I4	XXXI	1	10	18	4/F/A/1	18/A/iii
880	I5	XXXIII	1	15	20	4/F/A/1	16/B/ii
834	I6	XXXVII	1	10	24	4/F/A/1	18/A/ii
834	I6	XXXVII	1	15	20	4/F/A/1	18/A/iii
837	I7	XXXV	1	15	28	4/F/A/1	16/B/ii
837	I7	XXXV	1	10	22	4/F/A/1	16/B/ii
791	I7	XLVII	1	15	20	4/F/A/1	16/B/iii

Unglazed Ceramics

837	I7	XXXV	1	10	18	4/F/A/1	18/A/ii
837	I7	XXXV	1	15	18	4/F/A/1	18/A/ii
752	I7	XLI	1	15	16	4/F/A/1	18/A/iii
767	I8	LX	1	15	28	4/F/A/1	16/B/ii
788	I8	LIII	1	25	28	4/F/A/1	18/A/ii
767	I8	LX	2	30	22	4/F/A/1	18/A/ii
767	I8	LX	1	10	24	4/F/A/1	18/A/iii
767	I8	LX	2	30	24	4/F/A/1	18/A/iii
1360	J3	XVII	1	10	22	4/F/A/1	18/A/iii

Variant 4/G/A/1

Form 4 is a rim of a shallow bowl and variant 4/G/A/1 has a pointed rim. This form is heavily concentrated in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	45	30	4/G/A/1	18/B/ii
730	H1	LXIII	1	45	22	4/G/A/1	18/A/iii
1125	I1	XXIII	1	35	16	4/G/A/1	18/A/ii
977	I3	XXVIII	1	25	26	4/G/A/1	16/B/ii
1119	I3	XXIX	1	50	34	4/G/A/1	16/B/ii
977	I3	XXVIII	2	135	24	4/G/A/1	18/B/ii
962	I4	XXX	2	65	24	4/G/A/1	18/A/iii
1206	I6	XXXVI	1	30	22	4/G/A/1	18/A/ii
843	I7	XLII	1	15	14	4/G/A/1	16/B/iii

Variant 4/I/A/1 and 4/I/A/2

Form 4 is a rim of a shallow bowl. Variant 4/I/A/1 has a pointed rim at forty-five degrees, while 4/I/A/2 has a pointed rim that tapers inwards. This form is heavily concentrated in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	20	24	4/I/A/1	18/A/iii
9	B4	CVI	1	35	20	4/I/A/1	18/A/ii
5	B5	CXII	1	15	22	4/I/A/1	16/B/i
273	D	XCV	1	15	22	4/I/A/1	18/A/iii
284	D	XCV	1	25	16	4/I/A/1	18/A/iii
254	D	XCV	1	20	14	4/I/A/1	18/A/iii
367	F	XCII	1	20	22	4/I/A/1	18/A/ii
365	F	XCII	1	75	20	4/I/A/1	18/A/iii
364	F	XCII	1	70	30	4/I/A/1	18/B/i
632	G4	LXXXIII	2	25	32	4/I/A/1	16/B/iii
416	G5	XCI	1	40	40	4/I/A/1	18/A/ii
961	I4	XXX	1	20	26	4/I/A/1	16/B/ii
880	I5	XXXIII	1	25	20	4/I/A/1	18/A/iii
880	I5	XXXIII	2	35	24	4/I/A/1	18/A/iii
837	I7	XXXV	2	25	22	4/I/A/1	16/B/ii
812	I7	XLIV	2	25	22	4/I/A/1	18/A/iii
767	I8	LX	1	20	26	4/I/A/1	16/B/ii
768	I8	LX	1	20	22	4/I/A/1	18/A/ii
729	I8	LIII	1	10	20	4/I/A/1	18/A/iii
961	I4	XXX	1	25	28	4/I/A/2	18/A/iii
729	I8	LIII	1	35	24	4/I/A/2	18/A/iii

Variant 4/J/A/1

Form 4 is a rim of a shallow bowl and variant 4/J/A/1 has a rounded rim and thick body. This form has a single example in period K, but most sherds were heavily concentrated in the early part of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
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1	A2	CXVIII	1	35	18	4/J/A/1	18/B/ii
287	D	XCV	1	65	26	4/J/A/1	18/B/ii
367	F	XCII	1	35	28	4/J/A/1	18/A/ii
424	G5	XCI	1	50	26	4/J/A/1	18/B/i
1100	I2	XXVII	1	20	14	4/J/A/1	18/A/iii
1101	I2	XXVI	1	30	24	4/J/A/1	18/B/ii
977	I3	XXVIII	1	45	24	4/J/A/1	18/A/iii
977	I3	XXVIII	2	65	22	4/J/A/1	18/A/ii
977	I3	XXVIII	1	40	16	4/J/A/1	18/A/iii
977	I3	XXVIII	1	55	24	4/J/A/1	18/B/ii
959	I4	XXXI	1	55	28	4/J/A/1	18/A/ii
962	I4	XXX	1	55	26	4/J/A/1	18/A/iii
961	I4	XXX	1	25	20	4/J/A/1	18/A/iii
970	I4	XXXI	2	60	18	4/J/A/1	18/A/iii
894	I4	XXXII	1	20	20	4/J/A/1	18/A/iii
963	I4	XXXI	1	30	20	4/J/A/1	18/B/i
961	I4	XXX	1	60	22	4/J/A/1	18/B/ii
961	I4	XXX	1	60	28	4/J/A/1	18/B/ii
961	I4	XXX	1	40	24	4/J/A/1	18/B/ii
961	I4	XXX	1	55	20	4/J/A/1	18/B/ii
914	I4	XXXII	1	35	22	4/J/A/1	18/B/ii
880	I5	XXXIII	1	45	20	4/J/A/1	18/B/i
880	I5	XXXIII	1	35	24	4/J/A/1	18/B/ii
837	I7	XXXV	1	35	14	4/J/A/1	18/B/ii
1854	K1	V	1	25	26	4/J/A/1	18/A/iii

6.3.2.5 Form 6: Pot or hali

Form 6 is a vessel with a mouth that is slightly smaller than the width of its belly. Deraniyagala has noted similarities between its form and that of the traditional

Sri Lankan *hali*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.15).

Variant 6/B/A/1 and 6/B/A/2

6/B/A/1 has a slightly everted rim, while the rim on 6/B/A/2 is slightly more pronounced. A single example

was found in period J, but all the other samples were recovered from periods C, D & E or B.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
17	B5	CXIII	1	50	12	6/B/A/1	18/A/iii
353	D	XCV	1	20	18	6/B/A/1	18/A/iii
204	D	XCV	1	35	10	6/B/A/1	18/B/ii
1476	J3	XVII	2	55	14	6/B/A/1	18/A/iii
272	D	XCV	1	40	16	6/B/A/2	18/A/ii

Variant 6/C/A/1 and 6/C/A/2

6/C/A/1 has a rounded and thickened rim, and variant 6/C/A/2 is a more extremely thickened example. The int-

erior of both rims is vertical. Both have origins in period I and have examples in younger levels as well.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	170	18	6/C/A/1	11/A/iii
4	A	CXIV	1	120	24	6/C/A/1	18/B/ii
158	D	XCV	2	65	18	6/C/A/1	18/A/iii
178	D	XCV	1	35	16	6/C/A/1	18/A/iii
364	F	XCII	2	65	26	6/C/A/1	18/A/iii
364	F	XCII	1	90	26	6/C/A/1	18/B/ii
634	G2	LXIX	1	25	24	6/C/A/1	18/A/iii

Unglazed Ceramics

1125	I1	XXIII	1	115	28	6/C/A/1	18/B/ii
1213	I3	XXIX	1	315	26	6/C/A/1	18/B/I
977	I3	XXVIII	6	1090	28	6/C/A/1	18/B/ii
880	I5	XXXIII	2	465	28	6/C/A/1	18/B/ii
791	I7	XLVII	1	20	22	6/C/A/1	18/A/ii
4	A	CXIV	1	420	28	6/C/A/2	18/B/ii
964	I4	XXXII	1	380	30	6/C/A/2	18/B/ii

Variant 6/C/A/3

6/C/A/3 has a rounded and extremely thickened rim with a large internal groove. The interior of the rim is vertical.

The single example was recovered from period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
977	I3	XXVIII	1	105	22	6/C/A/3	18/B/ii

Variant 6/C/A/4

6/C/A/4 has a rounded, out-turned and extremely thickened rim. The interior of the rim is vertical. Most

examples were recovered from periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	25	14	6/C/A/4	18/A/iii
4	A	CXIV	1	155	28	6/C/A/4	18/B/I
4	A	CXIV	2	980	28	6/C/A/4	18/B/ii
9	B4	CVI	1	130	26	6/C/A/4	18/B/ii
1125	I1	XXIII	2	350	24	6/C/A/4	18/B/i
977	I3	XXVIII	4	980	34	6/C/A/4	18/B/i
977	I3	XXVIII	6	890	34	6/C/A/4	18/B/ii
977	I3	XXVIII	3	490	34	6/C/A/4	18/B/ii
1119	I3	XXIX	5	1025	24	6/C/A/4	18/B/ii
905	I4	XXXII	1	305	30	6/C/A/4	18/B/i
961	I4	XXX	1	275	32	6/C/A/4	18/B/ii
962	I4	XXX	1	185	28	6/C/A/4	18/B/ii
961	I4	XXX	2	215	30	6/C/A/4	18/B/ii
961	I4	XXX	3	405	28	6/C/A/4	18/B/ii
961	I4	XXX	1	290	30	6/C/A/4	18/B/ii
961	I4	XXX	2	350	26	6/C/A/4	18/B/ii
914	I4	XXXI	2	270	124	6/C/A/4	18/B/ii
970	I4	XXXI	2	390	34	6/C/A/4	18/B/ii
964	I4	XXXII	1	140	26	6/C/A/4	18/B/ii
914	I4	XXXII	1	290	24	6/C/A/4	18/B/ii
905	I4	XXXII	1	200	30	6/C/A/4	18/B/ii
894	I4	XXXII	1	355	28	6/C/A/4	18/B/ii
880	I5	XXXIII	1	435	30	6/C/A/4	18/B/i
880	I5	XXXIII	1	330	32	6/C/A/4	18/B/ii
834	I6	XXXVII	1	165	28	6/C/A/4	18/B/i
1172	J5	XXII	2	460	32	6/C/A/4	18/B/i
1175	J5	XVIII	1	75	30	6/C/A/4	18/B/ii

Variant 6/D/A/1

6/D/A/1 has a thickened, horizontally flat rim. It is a late form as the first examples do not occur until period F.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	11	760	20	6/D/A/1	18/A/ii
4	A	CXIV	3	240	20	6/D/A/1	18/A/ii
4	A	CXIV	5	180	14	6/D/A/1	18/A/iii

Anuradhapura: The Artefacts

4	A	CXIV	1	70	18	6/D/A/1	18/A/iii
4	A	CXIV	4	390	22	6/D/A/1	18/A/iii
4	A	CXIV	6	545	22	6/D/A/1	18/A/iii
4	A	CXIV	1	25	26	6/D/A/1	18/A/iii
4	A	CXIV	9	1115	24	6/D/A/1	18/B/i
4	A	CXIV	18	1260	28	6/D/A/1	18/B/ii
4	A	CXIV	1	100	28	6/D/A/1	18/B/ii
4	A	CXIV	10	870	28	6/D/A/1	18/B/ii
4	A	CXIV	10	915	26	6/D/A/1	18/B/ii
4	A	CXIV	21	1550	28	6/D/A/1	18/B/ii
4	A	CXIV	1	220	24	6/D/A/1	18/B/ii
4	A	CXIV	4	2320	24	6/D/A/1	18/B/ii
4	A	CXIV	3	295	26	6/D/A/1	18/B/ii
3	A1	CXV	6	425	26	6/D/A/1	18/A/iii
1	A2	CXVIII	3	170	14	6/D/A/1	18/A/ii
1	A2	CXVIII	1	150	24	6/D/A/1	18/B/i
25	B1	XCVII	2	145	22	6/D/A/1	18/A/ii
25	B1	XCVII	1	60	14	6/D/A/1	18/A/iii
25	B1	XCVII	1	40	20	6/D/A/1	18/A/iii
55	B1	XCVI	5	520	20	6/D/A/1	18/B/ii
58	B1	XCVI	2	175	20	6/D/A/1	18/B/ii
58	B1	XCVI	1	55	26	6/D/A/1	18/B/ii
25	B1	XCVII	2	175	22	6/D/A/1	18/B/ii
51	B1	XCIX	3	235	22	6/D/A/1	18/B/ii
51	B1	XCIX	2	135	135	6/D/A/1	18/B/ii
24	B2	C	3	195	24	6/D/A/1	18/A/ii
27	B2	C	2	190	26	6/D/A/1	18/A/iii
24	B2	C	3	320	20	6/D/A/1	18/B/i
24	B2	C	5	585	24	6/D/A/1	18/B/ii
27	B2	C	6	1025	28	6/D/A/1	18/B/ii
26	B3	CIV	4	315	20	6/D/A/1	18/A/ii
14	B3	CII	1	35	12	6/D/A/1	18/A/iii
14	B3	CII	2	140	20	6/D/A/1	18/A/iii
16	B3	CIII	2	200	26	6/D/A/1	18/B/ii
26	B3	CIV	4	815	26	6/D/A/1	18/B/ii
9	B4	CVI	1	155	28	6/D/A/1	18/A/ii
19	B4	CX	3	175	22	6/D/A/1	18/A/ii
9	B4	CVI	17	1820	20	6/D/A/1	18/A/iii
9	B4	CVI	2	270	22	6/D/A/1	18/A/iii
9	B4	CVI	8	770	28	6/D/A/1	18/B/ii
9	B4	CVI	5	540	28	6/D/A/1	18/B/ii
17	B5	CXIII	3	15	14	6/D/A/1	18/A/ii
17	B5	CXIII	12	810	22	6/D/A/1	18/A/ii
5	B5	CXII	1	120	24	6/D/A/1	18/A/iii
17	B5	CXIII	3	225	22	6/D/A/1	18/A/iii
17	B5	CXIII	1	90	22	6/D/A/1	18/A/iii
5	B5	CXII	2	370	28	6/D/A/1	18/B/ii
5	B5	CXII	1	65	24	6/D/A/1	18/B/ii
263	C	XCV	5	395	26	6/D/A/1	18/B/ii
263	C	XCV	7	735	20	6/D/A/1	18/B/ii
253	D	XCV	1	130	20	6/D/A/1	18/A/ii
259	D	XCV	1	70	18	6/D/A/1	18/A/ii
296	D	XCV	1	65	24	6/D/A/1	18/A/ii
254	D	XCV	1	35	12	6/D/A/1	18/A/ii
285	D	XCV	1	110	26	6/D/A/1	18/A/ii
168	D	XCV	1	30	16	6/D/A/1	18/A/iii
178	D	XCV	1	55	18	6/D/A/1	18/A/iii

Unglazed Ceramics

251	D	XCV	1	60	26	6/D/A/1	18/A/ii
324	D	XCV	3	125	16	6/D/A/1	18/A/ii
353	D	XCV	8	600	22	6/D/A/1	18/A/ii
56	D	XCV	1	95	1	6/D/A/1	18/A/ii
273	D	XCV	1	25	18	6/D/A/1	18/A/ii
285	D	XCV	2	160	24	6/D/A/1	18/A/ii
352	D	XCV	1	70	26	6/D/A/1	18/A/ii
158	D	XCV	5	565	28	6/D/A/1	18/B/I
285	D	XCV	2	145	24	6/D/A/1	18/B/I
285	D	XCV	1	252	30	6/D/A/1	18/B/I
86	D	XCV	2	225	20	6/D/A/1	18/B/I
158	D	XCV	19	2000	24	6/D/A/1	18/B/ii
158	D	XCV	8	860	24	6/D/A/1	18/B/ii
197	D	XCV	1	155	22	6/D/A/1	18/B/ii
256	D	XCV	3	310	24	6/D/A/1	18/B/ii
268	D	XCV	1	280	24	6/D/A/1	18/B/ii
272	D	XCV	7	630	16	6/D/A/1	18/B/ii
283	D	XCV	1	310	28	6/D/A/1	18/B/ii
283	D	XCV	1	85	22	6/D/A/1	18/B/ii
285	D	XCV	7	1490	22	6/D/A/1	18/B/ii
287	D	XCV	2	90	16	6/D/A/1	18/B/ii
299	D	XCV	4	405	26	6/D/A/1	18/B/ii
325	D	XCV	28	3130	30	6/D/A/1	18/B/ii
56	D	XCV	1	65	24	6/D/A/1	18/B/ii
86	D	XCV	4	440	20	6/D/A/1	18/B/ii
256	D	XCV	7	550	22	6/D/A/1	18/B/ii
272	D	XCV	1	230	20	6/D/A/1	18/B/ii
357	D	XCV	1	145	24	6/D/A/1	18/B/ii
366	F	XCII	1	160	22	6/D/A/1	18/A/ii
361	F	XCII	1	60	20	6/D/A/1	18/A/iii
365	F	XCII	2	135	22	6/D/A/1	18/A/iii
264	F	XCIII	1	65	20	6/D/A/1	18/B/ii
358	F	XCIII	1	85	22	6/D/A/1	18/B/ii
264	F	XCIII	2	235	20	6/D/A/1	18/B/ii

Variant 6/D/A/2

6/D/A/2 has a thickened, horizontally flat rim, which is more everted. The rim has an impressed decoration.

There is a single example from period I and all the others are from relatively late levels.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
27	B2	C	1	20	22	6/D/A/2	18/A/ii
14	B3	CII	1	100	12	6/D/A/2	18/A/ii
26	B3	CVI	15	545	15	6/D/A/2	18/A/ii
9	B4	CVI	1	45	14	6/D/A/2	18/A/ii
5	B5	CXII	1	15	16	6/D/A/2	18/A/ii
263	C	XCV	1	40	10	6/D/A/2	18/A/ii
158	D	XCV	1	20	22	6/D/A/2	18/A/ii
256	D	XCV	1	30	16	6/D/A/2	18/A/ii
1213	I3	XXIX	1	75	24	6/D/A/2	18/B/I

Variant 6/E/A/1

6/E/A/1 has a thickened, everted rim with deep indentation or carination. Despite the presence of five sherds

in periods J, I and F, the concentrations of this ceramic form are late in the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
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Anuradhapura: The Artefacts

4	A	CXIV	1	45	18	6/E/A/1	18/A/ii
4	A	CXIV	1	30	10	6/E/A/1	18/A/ii
4	A	CXIV	2	95	16	6/E/A/1	18/A/ii
4	A	CXIV	1	75	22	6/E/A/1	18/A/iii
4	A	CXIV	3	105	22	6/E/A/1	18/A/iii
4	A	CXIV	3	160	18	6/E/A/1	18/A/iii
4	A	CXIV	1	35	18	6/E/A/1	18/A/iii
4	A	CXIV	2	195	18	6/E/A/1	18/A/iii
4	A	CXIV	3	215	12	6/E/A/1	18/A/iii
4	A	CXIV	4	95	10	6/E/A/1	18/A/iii
4	A	CXIV	1	70	14	6/E/A/1	18/A/iii
4	A	CXIV	1	95	16	6/E/A/1	18/A/iii
4	A	CXIV	9	265	14	6/E/A/1	18/A/iii
4	A	CXIV	2	65	14	6/E/A/1	18/A/iii
3	A1	CXV	4	170	18	6/E/A/1	18/A/iii
1	A2	CXVIII	8	195	14	6/E/A/1	18/A/iii
55	B1	XCVI	1	65	12	6/E/A/1	18/A/iii
55	B1	XCVI	1	60	10	6/E/A/1	18/A/iii
58	B1	XCVI	1	30	10	6/E/A/1	18/A/iii
58	B1	XCVI	1	45	12	6/E/A/1	18/A/iii
25	B1	XCVII	1	20	12	6/E/A/1	18/A/iii
25	B1	XCVII	1	60	16	6/E/A/1	18/A/iii
51	B1	XCIX	1	90	14	6/E/A/1	18/A/iii
51	B1	XCIX	8	335	12	6/E/A/1	18/A/iii
51	B1	XCIX	1	70	14	6/E/A/1	18/A/iii
24	B2	C	7	275	12	6/E/A/1	18/A/iii
27	B2	C	1	45	12	6/E/A/1	18/A/iii
27	B2	C	4	185	14	6/E/A/1	18/A/iii
27	B2	C	1	35	12	6/E/A/1	18/A/iii
26	B3	CIV	5	200	12	6/E/A/1	18/A/ii
14	B3	CII	1	30	12	6/E/A/1	18/A/iii
16	B3	CIII	1	45	14	6/E/A/1	18/A/iii
26	B3	CIV	3	140	12	6/E/A/1	18/A/iii
26	B3	CIV	1	35	16	6/E/A/1	18/A/iii
26	B3	CIV	5	225	14	6/E/A/1	18/A/iii
9	B4	CVI	2	140	12	6/E/A/1	18/A/iii
9	B4	CVI	6	215	18	6/E/A/1	18/A/iii
9	B4	CVI	8	270	14	6/E/A/1	18/A/iii
9	B4	CVI	4	165	14	6/E/A/1	18/A/iii
5	B5	CXII	1	175	12	6/E/A/1	18/A/iii
5	B5	CXII	1	60	16	6/E/A/1	18/A/iii
17	B5	CXIII	3	150	18	6/E/A/1	18/A/iii
17	B5	CXIII	1	210	16	6/E/A/1	18/A/iii
6	B5	CXIII	1	40	16	6/E/A/1	18/A/iii
263	C	XCV	8	310	12	6/E/A/1	18/A/ii
263	C	XCV	2	80	16	6/E/A/1	18/A/iii
158	D	XCV	1	90	18	6/E/A/1	18/A/ii
182	D	XCV	2	110	16	6/E/A/1	18/A/ii
196	D	XCV	1	50	20	6/E/A/1	18/A/ii
204	D	XCV	1	35	12	6/E/A/1	18/A/ii
273	D	XCV	1	40	14	6/E/A/1	18/A/ii
325	D	XCV	3	105	18	6/E/A/1	18/A/ii
271	D	XCV	1	30	16	6/E/A/1	18/A/ii
155	D	XCV	1	30	10	6/E/A/1	18/A/iii
158	D	XCV	1	85	16	6/E/A/1	18/A/iii
158	D	XCV	25	940	18	6/E/A/1	18/A/iii
158	D	XCV	4	250	16	6/E/A/1	18/A/iii

Unglazed Ceramics

178	D	XCV	3	140	16	6/E/A/1	18/A/iii
182	D	XCV	3	95	14	6/E/A/1	18/A/iii
255	D	XCV	1	30	14	6/E/A/1	18/A/iii
255	D	XCV	1	90	12	6/E/A/1	18/A/iii
259	D	XCV	2	90	10	6/E/A/1	18/A/iii
271	D	XCV	4	105	14	6/E/A/1	18/A/iii
272	D	XCV	1	40	22	6/E/A/1	18/A/iii
272	D	XCV	5	145	14	6/E/A/1	18/A/iii
285	D	XCV	3	140	14	6/E/A/1	18/A/iii
289	D	XCV	1	40	12	6/E/A/1	18/A/iii
296	D	XCV	1	25	14	6/E/A/1	18/A/iii
296	D	XCV	1	75	14	6/E/A/1	18/A/iii
296	D	XCV	2	40	12	6/E/A/1	18/A/iii
299	D	XCV	5	155	8	6/E/A/1	18/A/iii
324	D	XCV	1	40	22	6/E/A/1	18/A/iii
325	D	XCV	17	670	18	6/E/A/1	18/A/iii
325	D	XCV	2	215	16	6/E/A/1	18/A/iii
353	D	XCV	2	70	10	6/E/A/1	18/A/iii
360	D	XCV	1	25	12	6/E/A/1	18/A/iii
50	D	XCV	1	20	12	6/E/A/1	18/A/iii
56	D	XCV	2	55	12	6/E/A/1	18/A/iii
86	D	XCV	6	255	12	6/E/A/1	18/A/iii
56	D	XCV	1	125	1	6/E/A/1	18/A/iii
56	D	XCV	2	85	2	6/E/A/1	18/A/iii
56	D	XCV	2	155	16	6/E/A/1	18/A/iii
158	D	XCV	10	465	28	6/E/A/1	18/A/iii
253	D	XCV	1	70	12	6/E/A/1	18/A/iii
256	D	XCV	1	15	14	6/E/A/1	18/A/iii
256	D	XCV	1	65	12	6/E/A/1	18/A/iii
272	D	XCV	1	45	14	6/E/A/1	18/A/iii
273	D	XCV	1	35	18	6/E/A/1	18/A/iii
285	D	XCV	1	35	12	6/E/A/1	18/A/iii
352	D	XCV	1	50	16	6/E/A/1	18/A/iii
86	D	XCV	2	260	20	6/E/A/1	18/B/i
257	D	XCV	1	85	24	6/E/A/1	18/B/i
367	F	XCII	1	30	20	6/E/A/1	18/A/iii
210	F	XCIII	1	40	12	6/E/A/1	18/A/iii
264	F	XCIII	1	85	14	6/E/A/1	18/A/iii
977	I3	XXVIII	2	105	24	6/E/A/1	18/A/iii
1175	J4	XVIII	1	40	22	6/E/A/1	18/A/iii

Variant 6/F/A/1

6/F/A/1 has a thickened, more everted rim with deep indentation or carination. It also has grooves on the exterior neck. Despite the presence of two sherds in per-

iods I and F, the concentrations of this ceramic form are late in the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	75	14	6/F/A/1	18/A/ii
4	A	CXIV	1	45	14	6/F/A/1	18/A/iii
3	A1	CXV	1	35	14	6/F/A/1	18/B/i
27	B2	C	1	40	14	6/F/A/1	18/A/i
269	D	XCV	1	30	16	6/F/A/1	18/A/i
255	D	XCV	2	55	12	6/F/A/1	18/A/iii
264	F	XCIII	1	195	36	6/F/A/1	18/A/i
1125	I1	XXIII	1	35	18	6/F/A/1	18/A/ii

Variant 6/G/A/1

6/G/A/1 has a thickened rim and a wide orifice and belly. Despite the presence of one sherd in period I, the concen-

trations of this ceramic form are late in the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
263	C	XCV	1	175	32	6/G/A/1	18/B/i
182	D	XCV	1	130	30	6/G/A/1	18/B/i
1101	I2	XXVI	1	40	18	6/G/A/1	18/A/iii

Variant 6/H/A/1

6/H/A/1 is small and has a thin body with a slightly everted rim. This is a useful chronological indicator as

the majority of the sherds are restricted to the latest phases of J and into period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	25	22	6/H/A/1	16/B/iii
4	A	CXIV	1	120	22	6/H/A/1	18/A/iii
4	A	CXIV	1	40	10	6/H/A/1	18/A/iii
4	A	CXIV	1	40	18	6/H/A/1	18/A/iii
256	D	XCV	1	10	14	6/H/A/1	18/A/i
256	D	XCV	1	35	12	6/H/A/1	18/A/iii
638	G2	LXXIII	1	15	14	6/H/A/1	16/B/iii
1125	I1	XXIII	3	75	24	6/H/A/1	16/B/i
1125	I1	XXIII	1	20	10	6/H/A/1	18/A/i
1125	I1	XXIII	1	10	8	6/H/A/1	18/A/iii
1153	I1	XXIV	3	40	20	6/H/A/1	18/A/iii
1101	I2	XXVI	1	35	22	6/H/A/1	16/B/i
1101	I2	XXVI	4	75	16	6/H/A/1	16/B/i
1101	I2	XXVI	1	45	16	6/H/A/1	18/A/i
1101	I2	XXVI	1	20	16	6/H/A/1	18/A/i
1101	I2	XXVI	2	40	16	6/H/A/1	18/A/iii
1101	I2	XXVI	1	20	18	6/H/A/1	18/A/iii
977	I3	XXVIII	5	100	18,20	6/H/A/1	16/B/i
977	I3	XXVIII	1	50	24	6/H/A/1	16/B/i
1119	I3	XXIX	8	225	12	6/H/A/1	16/B/i
977	I3	XXVIII	1	20	14	6/H/A/1	18/A/iii
977	I3	XXVIII	2	35	14	6/H/A/1	18/A/iii
962	I4	XXX	1	15	18	6/H/A/1	16/B/i
961	I4	XXX	1	25	14	6/H/A/1	16/B/iii
962	I4	XXX	2	50	16	6/H/A/1	18/A/iii
880	I5	XXXIII	2	45	22	6/H/A/1	18/A/iii
880	I5	XXXIII	1	30	16	6/H/A/1	18/A/iii
1206	I6	XXXVI	1	20	18	6/H/A/1	16/B/i
1206	I6	XXXVI	1	10	12	6/H/A/1	18/A/i
834	I6	XXXVII	1	40	18	6/H/A/1	18/A/iii
1215	J4	XIX	1	20	22	6/H/A/1	18/A/i
1174	J5	XX	1	20	22	6/H/A/1	16/B/i
1174	J5	XX	3	70	22	6/H/A/1	16/B/iii
1172	J5	XXII	1	15	18	6/H/A/1	18/A/iii

Variant 6/I/A/1

6/I/A/1 is small and has a thin body with a clearly everted rim. This is a very useful chronological indicator

as all the sherds are restricted to the early phases of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1124	I1	XXV	1	15	16	6/I/A/1	16/B/i

Unglazed Ceramics

1125	I1	XXIII	3	70	16	6/I/A/1	16/B/iii
1101	I2	XXVI	1	20	10	6/I/A/1	18/A/iii
977	I3	XXVIII	1	30	16	6/I/A/1	16/B/ii
961	I4	XXX	1	30	20	6/I/A/1	16/B/ii
962	I4	XXX	1	25	18	6/I/A/1	18/A/ii

Variant 6/K/A/1

6/K/A/1 has a thickened, out-turned, rounded rim. It has a globular belly profile. This is a useful chronological indicator as most sherds are restricted to period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
3	A1	CXV	1	40	16	6/K/A/1	18/A/ii
977	I3	XXVIII	1	30	16	6/K/A/1	18/A/iii
1383	I6	XXXVI	3	215	18	6/K/A/1	16/A/ii
837	I7	XXXV	2	80	26	6/K/A/1	18/A/ii

Variant 6/M/A/1

6/M/A/1 has a thickened, everted, rounded rim. It is a useful chronological indicator as most sherds are restricted to the late phases of period J and the early ones of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
194	F	XCIII	1	25	22	6/M/A/1	18/A/ii
365	F	XCII	1	30	24	6/M/A/1	18/A/iii
358	F	XCIII	1	65	18	6/M/A/1	18/A/iii
1101	I2	XXVI	1	20	24	6/M/A/1	16/B/iii
1101	I2	XXVI	1	20	24	6/M/A/1	18/A/iii
977	I3	XXVIII	2	70	26	6/M/A/1	16/B/I
1213	I3	XXIX	3	90	20	6/M/A/1	16/B/iii
977	I3	XXVIII	1	80	24	6/M/A/1	18/A/iii
977	I3	XXVIII	1	40	24	6/M/A/1	18/A/iii
977	I3	XXVIII	1	25	24	6/M/A/1	18/A/III
977	I3	XXVIII	3	105	18	6/M/A/1	18/A/iii
977	I3	XXVIII	1	60	20	6/M/A/1	18/B/ii
767	I8	LX	1	30	26	6/M/A/1	18/A/iii
1280	J4	XIX	1	100	28	6/M/A/1	18/B/I
1280	J4	XIX	1	70	22	6/M/A/1	18/B/ii

Variant 6/N/A/1 and 6/N/A/2

6/N/A/1 has a thickened, everted rim, while 6/N/A/2 has external grooving. Form 6/N/A/1 originates in period J with a concentration in I, but 6/N/A/2 appears later in the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	22	6/N/A/1	18/A/iii
4	A	CXIV	1	45	28	6/N/A/1	18/B/ii
3	A1	CXV	1	40	18	6/N/A/1	18/A/iii
366	F	XCII	1	55	20	6/N/A/1	18/A/iii
1125	I1	XXIII	1	20	12	6/N/A/1	16/B/iii
1125	I1	XXIII	1	85	16	6/N/A/1	16/B/ii
977	I3	XXVIII	1	20	20	6/N/A/1	18/A/iii
1213	I3	XXIX	1	40	18	6/N/A/1	18/A/iii
962	I4	XXX	1	30	16	6/N/A/1	18/A/iii
831	I6	XXXIX	1	20	12	6/N/A/1	18/A/iii
837	I7	XXXV	1	25	22	6/N/A/1	18/A/iii
1215	J4	XIX	1	50	18	6/N/A/1	16/B/ii

Anuradhapura: The Artefacts

4	A	CXIV	1	90	28	6/N/A/2	18/B/i
4	A	CXIV	1	165	26	6/N/A/2	18/B/ii
4	A	CXIV	2	200	34	6/N/A/2	18/B/ii
356	D	XCV	1	90	22	6/N/A/2	18/B/ii
364	F	XCII	3	465	26	6/N/A/2	18/B/ii

Variant 6/O/A/1

6/O/A/1 has a thickened, everted and rounded rim. It originates in period J with a concentration in I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	205	42	6/O/A/1	16/B/i
4	A	CXIV	1	85	24	6/O/A/1	16/B/ii
4	A	CXIV	1	85	28	6/O/A/1	16/B/iv
4	A	CXIV	1	55	22	6/O/A/1	18/A/iii
4	A	CXIV	1	50	30	6/O/A/1	18/B/i
4	A	CXIV	4	190	26	6/O/A/1	18/B/ii
25	B1	XCVII	1	85	26	6/O/A/1	18/A/iii
9	B4	CVI	2	175	38	6/O/A/1	16/B/iv
9	B4	CVI	2	130	28	6/O/A/1	18/B/ii
292	D	XCV	1	45	30	6/O/A/1	18/A/iii
367	F	XCII	1	80	42	6/O/A/1	16/B/v
364	F	XCII	1	140	26	6/O/A/1	18/A/iii
365	F	XCII	2	220	44	6/O/A/1	18/B/ii
616	G2	LXX	1	15	24	6/O/A/1	16/B/ii
634	G2	LXIX	1	25	24	6/O/A/1	18/A/ii
616	G2	LXX	1	45	36	6/O/A/1	18/B/ii
496	G3	LXXVI	1	50	26	6/O/A/1	18/A/ii
416	G5	XCI	1	40	40	6/O/A/1	18/B/i
730	H1	LXIII	1	45	35	6/O/A/1	18/A/iii
1125	I1	XXIII	1	50	28	6/O/A/1	18/A/ii
977	I3	XXVIII	1	45	24	6/O/A/1	18/A/ii
977	I3	XXVIII	5	570	28	6/O/A/1	18/A/ii
977	I3	XXVIII	1	35	22	6/O/A/1	18/B/i
977	I3	XXVIII	3	205	24	6/O/A/1	18/B/i
977	I3	XXVIII	4	270	28	6/O/A/1	18/B/ii
977	I3	XXVIII	2	120	24	6/O/A/1	18/B/ii
961	I4	XXX	2	50	22	6/O/A/1	18/A/ii
961	I4	XXX	3	150	24	6/O/A/1	18/A/iii
961	I4	XXX	2	225	28	6/O/A/1	18/B/i
962	I4	XXX	3	155	22	6/O/A/1	18/B/ii
961	I4	XXX	1	85	28	6/O/A/1	18/B/ii
880	I5	XXXIII	1	70	24	6/O/A/1	18/B/i
1206	I6	XXXVI	2	485	33	6/O/A/1	18/A/ii
834	I6	XXXVII	1	70	22	6/O/A/1	18/A/iii
831	I6	XXXIX	2	100	26	6/O/A/1	18/A/iii
850	I6	XL	1	30	18	6/O/A/1	18/A/iii
846	I7	XLII	1	30	26	6/O/A/1	16/B/iii
752	I7	XLI	1	45	24	6/O/A/1	18/A/ii
837	I7	XXXV	2	90	24	6/O/A/1	18/A/iii
791	I7	XLVII	1	50	20	6/O/A/1	18/A/iii
798	I7	XLVI	1	50	28	6/O/A/1	18/B/i
791	I7	XLVII	1	65	28	6/O/A/1	18/B/i
767	I8	LX	1	30	26	6/O/A/1	16/B/ii
767	I8	LX	1	30	26	6/O/A/1	18/A/iii
767	I8	LX	1	50	26	6/O/A/1	18/B/i
768	I8	LX	1	55	26	6/O/A/1	18/B/ii

Unglazed Ceramics

1403	J3	XVII	1	40	16	6/O/A/1	18/A/ii
1172	J5	XXII	2	225	26	6/O/A/1	18/B/i

Variant 6/O/A/2

6/N/A/2 has a thickened, everted and rounded rim with external grooving. Form 6/O/A/2 originates in period J with a concentration in I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	185	36	6/O/A/2	18/B/ii
977	I3	XXVIII	1	80	32	6/O/A/2	16/B/v
1213	I3	XXIX	1	35	22	6/O/A/2	18/A/iii
880	I5	XXXIII	1	255	24	6/O/A/2	18/B/ii
1206	I6	XXXVI	3	985	28,34	6/O/A/2	18/A/ii
834	I6	XXXVII	1	225	26	6/O/A/2	18/A/ii
1175	J4	XVIII	1	75	22	6/O/A/2	16/B/iii

6.3.2.6 Form 7: Pot or hali

Form 7 is a vessel with a mouth that is slightly smaller than the width of its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *hali*, which is used for both cooking and

storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170). He has also noted that it represents a transition to the *mutti* (Fig. 6.16).

Variants 7/A/A/1, 7/B/A/1 and 7/B/A/2

Three variants of Form 7 were recovered from trench ASW2 in periods I, C, D & E and A. Form 7 is a narrow-mouthed jar with a rounded lip (7/A/A/1) and two

variants with strongly everted rims, one of which has external grooves on the shoulder (7/B/A/2).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	35	12	7/A/A/1	18/A/iii
4	A	CXIV	1	15	20	7/A/A/1	18/A/iii
4	A	CXIV	3	75	12	7/A/A/1	18/A/iii
56	D	XCV	1	25	1	7/A/A/1	18/A/ii
256	D	XCV	1	25	14	7/A/A/1	18/A/iii
791	I7	XLVII	1	20	12	7/A/A/1	18/A/iii
1125	I1	XXIII	1	60	14	7/B/A/1	16/B/iii
1125	I1	XXIII	1	115	16	7/B/A/1	18/A/ii
1124	I1	XXV	1	120	24	7/B/A/1	18/B/ii
1206	I6	XXXVI	1	235	38	7/B/A/1	18/A/ii
1125	I1	XXIII	1	125	18	7/B/A/2	18/A/iii

6.3.2.7 Form 8: Pot or hali

Form 8 is a vessel with a mouth that is slightly smaller than the width of its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *hali*, which is used for both cooking and

storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170). He has also noted that it represents a transition to the *mutti* (Fig. 6.17).

Variants 8/A/A/1, 8/A/A/2 and 8/A/B/1

8/A/A/1 has a slightly thickened rim, 8/A/A/2 has a slightly thickened rim and an internal groove, and 8/A/B/1 has a slightly thickened rim which has a slight

outward flare. All are present in period I, and 8/A/A/1 and 8/A/A/2 first occur in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1293	J3	XVI	1	125	24	8/A/A/1	18/B/i
977	I3	XXVIII	3	125	22	8/A/A/2	18/A/iii
1175	J4	XVIII	1	20	22	8/A/A/2	16/B/iii

Anuradhapura: The Artefacts

880	I5	XXXIII	1	25	24	8/A/B/1	18/A/iii
850	I6	XL	2	60	24	8/A/B/1	16/B/i

Variants 8/B/A/1 and 8/C/A/1

8/B/A/1 has a slightly thickened everted rim and 8/C/A/1 has a slightly thickened rolled over and everted rim. Both

variants are present in period I and both first occur at the end of period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
850	I6	XL	2	60	24	8/A/B/1	16/B/i
1125	I1	XXIII	1	30	22	8/B/A/1	16/B/i
1125	I1	XXIII	1	30	16	8/B/A/1	18/A/iii
1101	I2	XXVI	1	20	20	8/B/A/1	16/B/i
977	I3	XXVIII	1	10	20	8/B/A/1	16/B/iii
1097	I3	XXXIX	1	25	16	8/B/A/1	18/A/iii
973	I4	XXXI	1	30	22	8/B/A/1	18/A/iii
1172	J5	XXII	1	35	12	8/B/A/1	18/B/I
977	I3	XXVIII	1	50	26	8/C/A/1	18/A/iii
977	I3	XXVIII	1	25	14	8/C/A/1	18/A/iii
834	I6	XXXVII	1	20	16	8/C/A/1	18/A/i
1232	J4	XIX	1	15	20	8/C/A/1	18/A/i

Variant 8/D/A/1

8/D/A/1 has a slightly thickened, rolled over and everted rim. This variant originates in period K and is present in

concentrations in period I. Scattered sherds are also found in periods G, B and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	100	44	8/D/A/1	18/B/I
25	B1	XCVII	1	65	26	8/D/A/1	18/A/iii
25	B1	XCVII	1	50	20	8/D/A/1	18/B/i
634	G2	LXIX	1	50	24	8/D/A/1	18/A/iii
632	G4	LXXXIII	1	110	36	8/D/A/1	18/B/i
1125	I1	XXIII	1	65	28	8/D/A/1	18/A/i
1125	I1	XXIII	18	30	18	8/D/A/1	18/A/i
1125	I1	XXIII	3	80	28	8/D/A/1	18/A/i
1125	I1	XXIII	1	40	18	8/D/A/1	18/A/ii
1125	I1	XXIII	1	60	20	8/D/A/1	18/A/iii
1125	I1	XXIII	1	15	16	8/D/A/1	18/A/iii
1125	I1	XXIII	1	90	24	8/D/A/1	18/B/i
1101	I2	XXVI	1	40	22	8/D/A/1	18/A/i
1101	I2	XXVI	1	30	12	8/D/A/1	18/A/iii
977	I3	XXVIII	1	50	16	8/D/A/1	18/A/i
977	I3	XXVIII	1	30	14	8/D/A/1	18/A/iii
977	I3	XXVIII	2	80	26	8/D/A/1	18/A/iii
977	I3	XXVIII	1	65	20	8/D/A/1	18/A/iii
977	I3	XXVIII	2	45	16	8/D/A/1	18/A/iii
977	I3	XXVIII	1	35	16	8/D/A/1	18/A/iii
977	I3	XXVIII	1	60	16	8/D/A/1	18/A/iii
1119	I3	XXIX	1	30	14	8/D/A/1	18/A/iii
977	I3	XXVIII	1	14	26	8/D/A/1	18/B/i
962	I4	XXX	1	45	18	8/D/A/1	18/A/iii
961	I4	XXX	1	30	22	8/D/A/1	18/A/iii
880	I5	XXXIII	2	60	20	8/D/A/1	18/A/iii
880	I5	XXXIII	1	20	18	8/D/A/1	18/A/iii
1399	I6	XXXVI	1	45	22	8/D/A/1	18/A/i
1106	I6	XXXVI	1	30	10	8/D/A/1	18/A/iii

Unglazed Ceramics

831	I6	XXXIX	1	25	16	8/D/A/1	18/A/ii
850	I6	XL	1	20	22	8/D/A/1	18/A/iii
816	I7	L	1	25	16	8/D/A/1	18/A/ii
767	I8	LX	1	130	24	8/D/A/1	18/A/ii
767	I8	LX	1	15	10	8/D/A/1	18/A/iii
1473	J3	XVII	2	50	16	8/D/A/1	18/A/iii
1248	J4	XIX	1	20	16	8/D/A/1	18/A/iii
1172	J5	XXII	1	20	26	8/D/A/1	18/A/iii
1616	K3	VIII	1	20	16	8/D/A/1	18/A/iii
1617	K3	X	1	30	14	8/D/A/1	18/A/iii
1615	K3	X	1	40	26	8/D/A/1	18/A/iii

Variant 8/D/A/2

8/D/A/2 has a slightly thickened, rolled over and everted rim with internal grooves. This variant originates in period J and is present in concentrations in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	20	16	8/D/A/2	18/A/ii
1125	I1	XXIII	1	20	14	8/D/A/2	18/A/iii
1125	I1	XXIII	2	65	18	8/D/A/2	18/A/iii
1101	I2	XXVI	1	40	10	8/D/A/2	18/B/ii
977	I3	XXVIII	2	90	18	8/D/A/2	18/B/ii
902	I4	XXXI	1	30	20	8/D/A/2	18/B/ii
880	I5	XXXIII	1	40	20	8/D/A/2	18/A/iii
1382	J3	XVII	1	30	22	8/D/A/2	16/B/iii

Variants 8/E/A/1 and 8/E/A/2

8/E/A/1 has a slightly thickened, rolled over and everted rim at right angles to the body. 8/E/A/2 is similar with round impressions on exterior. Both originate in period J and are present in concentrations in period I, with a single sherd in period G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
616	G2	LXX	1	30	18	8/E/A/1	18/A/iii
1101	I2	XXVI	1	140	22	8/E/A/1	18/A/iii
1101	I2	XXVI	1	30	22	8/E/A/1	18/A/iii
977	I3	XXVIII	11	70	26	8/E/A/1	16/B/v
977	I3	XXVIII	1	90	20	8/E/A/1	18/A/iii
961	I4	XXX	2	50	16	8/E/A/1	18/A/ii
964	I4	XXXII	1	55	20	8/E/A/1	18/A/ii
880	I5	XXXIII	1	559	22	8/E/A/1	18/A/iii
837	I7	XXXV	1	70	28	8/E/A/1	18/B/i
1208	J5	XXI	1	75	18	8/E/A/1	18/A/iii
1125	I1	XXIII	1	45	18	8/E/A/2	16/B/ii
1125	I1	XXIII	1	20	12	8/E/A/2	18/A/iii
977	I3	XXVIII	1	35	20	8/E/A/2	18/A/ii
1208	J5	XXI	1	15	18	8/E/A/2	18/A/ii
1172	J5	XXII	2	85	26	8/E/A/2	18/A/iii

Variants 8/F/A/1 and 8/F/A/2

8/F/A/1 has a slightly thickened, rolled over and clearly everted rim. 8/F/A/2 is more everted. 8/F/A/1 originates in period K and is present in period I with 8/F/A/2.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	155	30	8/F/A/1	18/B/I
1125	I1	XXIII	1	115	30	8/F/A/1	18/B/I
1125	I1	XXIII	1	50	22	8/F/A/1	18/B/II
1101	I2	XXVI	1	65	26	8/F/A/1	18/B/I
1101	I2	XXVI	1	70	22	8/F/A/1	18/B/II
977	I3	XXVIII	4	115	16	8/F/A/1	18/A/II
977	I3	XXVIII	2	195	28	8/F/A/1	18/B/II
977	I3	XXVIII	1	150	24	8/F/A/1	18/B/II
977	I3	XXVIII	3	140	24	8/F/A/1	18/B/II
880	I5	XXXIII	1	30	18	8/F/A/1	16/B/II
1215	J4	XIX	1	70	22	8/F/A/1	18/A/II
1172	J5	XXII	1	30	26	8/F/A/1	18/B/II
1125	I1	XXIII	6	220	16	8/F/A/2	18/A/II
1125	I1	XXIII	3	70	20	8/F/A/2	18/A/III
1125	I1	XXIII	1	60	22	8/F/A/2	18/A/III
1149	I1	XXIV	1	40	18	8/F/A/2	18/B/II
1101	I2	XXVI	1	40	20	8/F/A/2	18/A/III
977	I3	XXVIII	1	20	18	8/F/A/2	18/A/III
962	I4	XXX	1	25	26	8/F/A/2	16/B/II
962	I4	XXX	1	20	14	8/F/A/2	18/A/II
963	I4	XXXI	1	25	16	8/F/A/2	18/A/III
964	I4	XXXII	1	25	16	8/F/A/2	18/A/III
837	I7	XXXV	1	45	24	8/F/A/2	18/A/II
791	I7	XLVII	2	165	22	8/F/A/2	18/B/I

Variant 8/G/A/1

8/G/A/1 has a steep, internal protrusion. This variant is useful chronologically as it was only found in the early phases of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1101	I2	XXVI	1	15	16	8/G/A/1	16/B/II
977	I3	XXVIII	1	30	20	8/G/A/1	18/A/III
977	I3	XXVIII	1	30	20	8/G/A/1	18/B/II
1119	I3	XXIX	1	35	26	8/G/A/1	18/B/II
962	I4	XXX	3	50	16	8/G/A/1	18/A/III
962	I4	XXX	1	25	16	8/G/A/1	18/A/III

Variant 8/H/A/1

8/H/A/1 has a bifacially thickened lip worked into a pointed tip. 8/H/A/1 appears only in the most recent level.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	55	14	8/H/A/1	18/A/III
4	A	CXIV	2	270	30	8/H/A/1	18/B/II

Variant 8/J/A/1

8/J/A/1 has a bifacially thickened and everted rim subdivided externally by a groove. This variant is useful chronologically as it was only found in the early phases of period I and first appeared in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
977	I3	XXVIII	1	75	22	8/J/A/1	18/B/II
1473	J3	XVII	1	120	28	8/J/A/1	18/B/II
1372	J3	XVII	1	50	28	8/J/A/1	18/B/II

Variant 8/K/A/1

8/K/A/1 has a thickened and pointed rim. This variant was only found in periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	25	28	8/K/A/1	18/A/ii
1153	I1	XXIV	1	40	28	8/K/A/1	18/A/iii
850	I6	XL	1	40	22	8/K/A/1	18/B/ii
832	I7	XLII	1	35	30	8/K/A/1	16/B/ii
772	I7	XLII	1	10	20	8/K/A/1	18/A/ii
1407	J2	XIV	1	20	22	8/K/A/1	18/A/iii
1292	J4	XIX	1	25	20	8/K/A/1	18/B/ii

Variant 8/M/A/1

8/M/A/1 has a quadrangular, everted rim with a dorsal groove. This variant was only found in period K.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1714	K1	VI	1	20	14	8/M/A/1	18/A/iii

Variant 8/N/A/1

8/N/A/1 has a well-rounded and rolled over rim. This variant has a concentration in periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	155	24	8/N/A/1	18/B/i
4	A	CXIV	1	80	10	8/N/A/1	18/B/ii
263	C	XCV	1	220	30	8/N/A/1	18/B/ii
158	D	XCV	1	125	14	8/N/A/1	18/A/iii
158	D	XCV	1	55	18	8/N/A/1	18/B/ii
1125	I1	XXIII	1	50	20	8/N/A/1	18/A/iii
1125	I1	XXIII	1	35	16	8/N/A/1	18/B/ii
1125	I1	XXIII	2	245	24	8/N/A/1	18/B/ii
1125	I1	XXIII	2	160	22,18	8/N/A/1	18/A/iii
977	I3	XXVIII	1	180	32	8/N/A/1	18/B/ii
909	I4	XXXI	1	220	26	8/N/A/1	18/B/i
961	I4	XXX	1	85	20	8/N/A/1	18/B/ii
970	I4	XXXI	1	65	26	8/N/A/1	18/B/ii
970	I4	XXXI	1	75	26	8/N/A/1	18/B/ii
1215	J4	XIX	1	140	30	8/N/A/1	18/A/iii

Variants 8/O/A/1 and 8/O/A/2

8/O/A/1 has a quadrangular, everted rim which tapers inwards. 8/O/A/2 is grooved and incised dorsally.

8/O/A/1 first appears in period J and 8/O/A/2 in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1372	J3	XVII	1	25	20	8/O/A/1	18/A/iii
977	I3	XXVIII	2	245	24	8/O/A/2	18/B/ii

6.3.2.8 Form 10: Jar or mutti

Form 10 is a jar with a mouth much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mutti*, which

is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.18).

Variant 10/A/A/1

Jar rim with grooves at shoulder. Earliest example appears close to the end of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
158	D	XCV	1	20	12	10/A/A/1	18/A/iii
355	F	XCIII	1	30	10	10/A/A/1	18/A/i
1383	I6	XXXVI	1	15	12	10/A/A/1	18/A/iii
632	G4	LXXXIII	2	110	16	10/A/A/1	18/A/iii

Variant 10/B/A/1

Jar rim with slightly thickened lip. It has a relatively early appearance in phase I3, but five of its seven examples were recovered from periods C, D & E, B and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	95	8	10/B/A/1	18/A/iii
9	B4	CVI	1	30	10	10/B/A/1	18/A/iii
9	B4	CVI	1	55	10	10/B/A/1	18/A/iii
17	B5	CXIII	1	30	10	10/B/A/1	18/A/i
158	D	XCV	1	35	12	10/B/A/1	18/A/iii
634	G2	LXIX	1	50	20	10/B/A/1	18/A/iii
977	I3	XXVIII	1	15	12	10/B/A/1	18/A/iii

Variant 10/C/A/1

Jar with acute pointed lip to rim and notably conical base. Its earliest appearance in the ASW2 sequence is in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	160	12	10/C/A/1	18/A/iii
55	B1	XCVI	2	45	12	10/C/A/1	18/A/iii
158	D	XCV	6	120	10	10/C/A/1	18/A/iii
211	D	XCV	1	30	8	10/C/A/1	18/A/iii
212	D	XCV	1	30	12	10/C/A/1	18/A/iii
261	D	XCV	1	20	8	10/C/A/1	18/A/iii
977	I3	XXVIII	1	35	20	10/C/A/1	16/B/i

Variant 10/C/A/2

Jar with more rounded base, acute pointed lip and clearly marked with paddle impressions. Both examples are relatively young in the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
9	B4	CVI	3	150	14	10/C/A/2	18/A/iii
256	D	XCV	1	30	10	10/C/A/2	18/A/i

Variant 10/C/A/3

Jar with square rim profile and slightly pointed base. Clearly marked with paddle impressions. All examples are relatively young in the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	3	50	4	10/C/A/3	18/A/iii
51	B1	XCIX	1	25	14	10/C/A/3	18/A/iii
9	B4	CVI	2	85	12	10/C/A/3	18/A/iii
19	B4	CX	1	30	12	10/C/A/3	18/A/iii
285	D	XCV	1	15	10	10/C/A/3	18/A/iii

Variants 10/D/A/1 and 10/D/A/2

Slightly thickened jar necks, both with similarities with 10/C/A/2 and 10/C/A/1, which may suggest that this is

Unglazed Ceramics

the result of potter intervariability. 10/D/A/1 has a square rim section, while 10/D/A/2 is less so. Although variant 10/D/A/1 first occurs in phase K3, most of its examples

are found from period C, D & E onwards. Variant 10/D/A/2 appears at the beginning of period I but peaks during C, D & E.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	10	10	10/D/A/1	18/A/iii
4	A	CXIV	1	55	14	10/D/A/1	18/A/iii
4	A	CXIV	2	45	10	10/D/A/1	18/A/iii
4	A	CXIV	1	35	10	10/D/A/1	18/A/iii
4	A	CXIV	1	40	10	10/D/A/1	18/A/iii
1	A2	CXVIII	2	35	8	10/D/A/1	18/A/iii
51	B1	XCIX	1	35	10	10/D/A/1	18/A/ii
51	B1	XCIX	1	20	10	10/D/A/1	18/A/iii
24	B2	C	1	30	8	10/D/A/1	18/A/iii
27	B2	C	1	40	8	10/D/A/1	18/A/iii
26	B3	CIV	2	155	10	10/D/A/1	18/A/iii
26	B3	CIV	21	2000	24	10/D/A/1	18/B/ii
263	C	XCV	1	25	8	10/D/A/1	18/A/iii
178	D	XCV	1	20	12	10/D/A/1	18/A/ii
158	D	XCV	1	20	12	10/D/A/1	18/A/iii
268	D	XCV	1	55	14	10/D/A/1	18/A/iii
299	D	XCV	1	10	12	10/D/A/1	18/A/iii
325	D	XCV	4	105	10	10/D/A/1	18/A/iii
256	D	XCV	1	25	10	10/D/A/1	18/A/iii
977	I3	XXVIII	1	35	16	10/D/A/1	18/A/iii
1616	K3	VIII	1	70	18	10/D/A/1	18/B/ii
4	A	CXIV	1	35	12	10/D/A/2	18/A/ii
4	A	CXIV	1	45	16	10/D/A/2	18/A/ii
4	A	CXIV	1	10	10	10/D/A/2	18/A/iii
17	B5	CXIII	2	35	12	10/D/A/2	18/A/iii
1101	I2	XXVI	1	20	16	10/D/A/2	16/B/ii
961	I4	XXX	1	20	22	10/D/A/2	18/A/iii

Variant 10/E/A/1

Jar with pointed, almost everted lip and semi-vertical exterior neck. Its earliest appearance was in period I, but

most sherds were recovered from periods C, D, & E, B and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	70	10	10/E/A/1	18/A/ii
4	A	CXIV	1	25	12	10/E/A/1	18/A/iii
4	A	CXIV	1	55	12	10/E/A/1	18/A/iii
55	B1	XCVI	1	30	14	10/E/A/1	18/A/iii
25	B1	XCVII	1	35	10	10/E/A/1	18/A/iii
26	B3	CIV	2	95	14	10/E/A/1	18/A/ii
5	B5	CXII	1	30	12	10/E/A/1	18/A/iii
182	D	XCV	1	15	14	10/E/A/1	18/A/ii
259	D	XCV	1	20	12	10/E/A/1	18/A/ii
158	D	XCV	1	20	12	10/E/A/1	18/A/iii
196	D	XCV	1	85	12	10/E/A/1	18/A/iii
254	D	XCV	1	25	10	10/E/A/1	18/A/iii
256	D	XCV	2	35	10	10/E/A/1	18/A/iii
272	D	XCV	1	55	10	10/E/A/1	18/A/iii
285	D	XCV	1	15	10	10/E/A/1	18/A/iii
325	D	XCV	1	45	14	10/E/A/1	18/A/iii
271	D	XCV	1	15	10	10/E/A/1	18/A/iii
273	D	XCV	2	30	10	10/E/A/1	18/A/iii

325	D	XCV	1	50	14	10/E/A/1	18/B/I
1101	I2	XXVI	1	40	20	10/E/A/1	18/A/iii
896	I6	XXXVI	1	60	14	10/E/A/1	18/A/iii
834	I6	XXXVII	1	10	26	10/E/A/1	18/A/iii

6.3.2.9 Form 11: Jar or mutti

Form 11 is a jar with a medium to long-necked mouth that is much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mutti*, which is used for both

cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.19).

Variants 11/A/A/1, 11/B/A/1 and 11/C/A/2

There are three variants within Form 11, which is characterized by medium to long-necked jars. Variant 11/A/A/1 is a very small example, 11/B/A/1 has a

slightly thickened and rolled-over rim and 11/C/A/2 is rolled-over and has a marked shoulder carination.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
630	G3	LXXVI	1	10	8	11/A/A/1	18/A/iii
632	G4	LXXXIII	1	15	10	11/A/A/1	18/A/iii
4	A	CXIV	1	40	14	11/B/A/1	18/A/iii
4	A	CXIV	1	60	12	11/C/A/2	18/A/ii

6.3.2.10 Form 12: Jar or mutti

Form 12 is a jar with a short neck and mouth that is much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional

Sri Lankan *mutti*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.19).

Variant 12/A/A/1

Jar with a relatively wide belly and thickened, everted lip. Three sherds were found in the early phases of period

J, a further two sherds in period I and the balance in periods C, D & E, B and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	25	8	12/A/A/1	18/A/ii
4	A	CXIV	1	25	10	12/A/A/1	18/A/iii
4	A	CXIV	1	90	14	12/A/A/1	18/A/iii
4	A	CXIV	1	50	14	12/A/A/1	18/A/iii
55	B1	XCVI	1	50	14	12/A/A/1	18/A/iii
196	D	XCV	1	40	12	12/A/A/1	18/A/ii
158	D	XCV	1	80	14	12/A/A/1	18/A/iii
158	D	XCV	1	55	14	12/A/A/1	18/A/iii
182	D	XCV	1	50	12	12/A/A/1	18/A/iii
1125	I1	XXIII	1	75	24	12/A/A/1	18/A/iii
961	I4	XXX	1	45	10	12/A/A/1	18/A/iii
1463	J2	XV	1	205	24	12/A/A/1	18/A/ii
1362	J3	XVII	1	100	14	12/A/A/1	18/A/ii
1406	J2	XV	1	55	22	12/A/A/1	18/A/ii

Variant 12/B/A/1

Jar with a relatively wide belly and pointed, everted lip. Nine sherds were recovered from periods I and K, indicating an early form.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
24	B2	C	2	100	14	12/B/A/1	18/A/iii
24	B2	C	1	85	10	12/B/A/1	18/A/iii
27	B2	C	1	100	12	12/B/A/1	18/A/iii

Unglazed Ceramics

26	B3	CIV	1	55	14	12/B/A/1	18/A/iii
9	B4	CVI	2	55	10	12/B/A/1	18/A/iii
17	B5	CXIII	1	85	14	12/B/A/1	18/A/iii
324	D	XCV	1	30	12	12/B/A/1	18/A/ii
325	D	XCV	2	65	14	12/B/A/1	18/A/ii
158	D	XCV	2	130	14	12/B/A/1	18/A/iii
56	D	XCV	1	30	10	12/B/A/1	18/A/iii
977	I3	XXVIII	2	60	14	12/B/A/1	18/A/iii
977	I3	XXVIII	2	40	18	12/B/A/1	18/A/iii
977	I3	XXVIII	1	20	18	12/B/A/1	18/A/iii
977	I3	XXVIII	1	65	24	12/B/A/1	18/B/ii
964	I4	XXXII	2	50	26	12/B/A/1	18/A/ii
1615	K3	X	1	35	16	12/B/A/1	18/A/ii

Variant 12/C/A/1

Jar with a relatively wide belly and everted, grooved lip. Both examples came from period B, indicating a relatively late development.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	30	12	12/C/A/1	18/A/iii
5	B5	CXII	1	40	8	12/C/A/1	18/A/ii

6.3.2.11 Form 13: Jar or kale

Form 13 is a jar with a long neck, small mouth and an ovate body. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *kale*, which

is used as a water-jar (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 171) (Fig. 6.20).

Variant 13/A/A/1

Jar with a relatively wide belly and long neck. Rolled-over, rounded lip to rim. One early example from phase J4, others are relatively late.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	110	10	13/A/A/1	18/A/ii
4	A	CXIV	2	65	14	13/A/A/1	18/A/iii
255	D	XCV	1	45	10	13/A/A/1	18/A/iii
158	D	XCV	1	45	14	13/A/A/1	18/B/ii
1175	J4	XVIII	1	120	22	13/A/A/1	18/A/iii

Variants 13/B/A/1, 13/B/A/2, 13/B/A/3 and 13/B/A/4

Jar with a relatively wide belly and long neck. Rolled-over and projecting rounded lip to rim. 13/B/A/2 has a single groove at the shoulder, 13/B/A/3 has two grooves

and 13/B/A/4 is deep. 12/B/A/1 is the oldest with an example in K3, but the other three first appear in periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	50	12	13/B/A/1	18/A/iii
364	F	XCII	1	25	18	13/B/A/1	18/A/ii
203	F	XCIII	1	20	10	13/B/A/1	18/A/iii
366	F	XCII	1	120	12	13/B/A/1	18/B/ii
1153	I1	XXIV	1	50	16	13/B/A/1	18/B/ii
834	I6	XXXVII	5	225	14	13/B/A/1	18/A/III
1473	J3	XVII	2	155	20	13/B/A/1	18/A/ii
1473	J3	XVII	2	420	20	13/B/A/1	18/A/ii
1473	J3	XVII	1	125	16	13/B/A/1	18/B/i
1293	J3	XVI	1	70	14	13/B/A/1	18/B/ii

1175	J4	XVIII	1	50	22	13/B/A/1	18/B/ii
1615	K3	X	1	15	20	13/B/A/1	18/A/iii
812	I7	XLIV	2	110	12	13/B/A/2	18/A/iii
832	I7	XLII	2	110	12	13/B/A/3	18/B/i
4	A	CXIV	2	70	10	13/B/A/4	18/A/iii
25	B1	XCVII	2	50	10	13/B/A/4	18/A/iii
365	F	XCII	4	135	12	13/B/A/4	18/A/iii
1473	J3	XVII	1	50	12	13/B/A/4	18/A/iii

6.3.2.12 Form 14: jar or mutti

Form 14 is a medium to small-sized jar with a mouth much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional

Sri Lankan *mutti*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.21).

Variant 14/A/A/1

Form 14 is a medium to small-sized jar. Variant 14/A/A/1 has a slightly thickened rim which flares slightly. Its distribution through the ASW2 sequence is

from period K to period A, with a concentration in periods J, I and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	35	14	14/A/A/1	18/A/iii
25	B1	XCVII	1	25	12	14/A/A/1	18/A/ii
25	B1	XCVII	1	30	10	14/A/A/1	18/A/iii
299	D	XCV	1	20	12	14/A/A/1	18/A/iii
267	D	XCV	1	25	10	14/A/A/1	18/A/iii
616	G2	LXX	1	20	10	14/A/A/1	17/B/iii
632	G4	LXXXIII	2	75	14	14/A/A/1	18/A/iii
416	G5	XCI	1	10	10	14/A/A/1	18/A/iii
1125	I1	XXIII	1	15	12	14/A/A/1	18/A/ii
1101	I2	XXVI	1	15	12	14/A/A/1	18/A/iii
977	I3	XXVIII	1	20	18	14/A/A/1	18/A/ii
1213	I3	XXIX	1	10	16	14/A/A/1	18/A/ii
977	I3	XXVIII	2	40	16	14/A/A/1	18/A/iii
1106	I6	XXXVI	1	20	14	14/A/A/1	18/A/iii
767	I8	LX	1	15	12	14/A/A/1	18/A/iii
1407	J2	XIV	1	20	16	14/A/A/1	18/A/iii
1293	J3	XVI	1	25	16	14/A/A/1	18/A/iii
1293	J3	XVI	2	45	12	14/A/A/1	18/A/iii
1293	J3	XVI	2	45	12	14/A/A/1	18/A/iii
1175	J4	XVIII	2	40	22	14/A/A/1	18/A/ii
1175	J4	XVIII	2	40	24	14/A/A/1	18/A/iii
1175	J4	XVIII	1	20	16	14/A/A/1	18/A/iii
1616	K3	VIII	1	20	20	14/A/A/1	18/A/iii

Variant 14/A/B/1

Form 14 is a medium to small-sized jar. Variant 14/A/B/1 has a slightly thickened rim which is less flared. Its distribution through the ASW2 sequence is

from period K to period A with a heavy concentration in periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	10	14/A/B/1	18/A/ii
4	A	CXIV	4	120	12	14/A/B/1	18/A/iii
4	A	CXIV	2	40	10	14/A/B/1	18/A/iii
4	A	CXIV	1	15	12	14/A/B/1	18/A/iii
4	A	CXIV	1	20	12	14/A/B/1	18/A/iii
4	A	CXIV	1	20	12	14/A/B/1	18/A/iii

Unglazed Ceramics

4	A	CXIV	1	70	8	14/A/B/1	18/A/iii
4	A	CXIV	2	95	12	14/A/B/1	18/A/iii
4	A	CXIV	1	25	12	14/A/B/1	18/A/iii
3	A1	CXV	1	20	12	14/A/B/1	18/A/iii
213	B1	XCVI	1	20	10	14/A/B/1	18/A/iii
25	B1	XCVII	2	70	10	14/A/B/1	18/A/iii
26	B3	CIV	4	150	16	14/A/B/1	18/A/iii
5	B5	CXII	1	120	10	14/A/B/1	18/A/iii
5	B5	CXII	1	30	12	14/A/B/1	18/A/iii
256	D	XCV	3	90	12	14/A/B/1	18/A/ii
272	D	XCV	1	30	14	14/A/B/1	18/A/ii
273	D	XCV	2	40	12	14/A/B/1	18/A/ii
294	D	XCV	1	20	14	14/A/B/1	18/A/ii
273	D	XCV	1	15	10	14/A/B/1	18/A/ii
158	D	XCV	2	45	10	14/A/B/1	18/A/iii
158	D	XCV	2	45	10	14/A/B/1	18/A/iii
205	D	XCV	1	20	14	14/A/B/1	18/A/iii
252	D	XCV	1	15	14	14/A/B/1	18/A/iii
254	D	XCV	1	15	14	14/A/B/1	18/A/iii
255	D	XCV	1	30	14	14/A/B/1	18/A/iii
259	D	XCV	1	10	18	14/A/B/1	18/A/iii
283	D	XCV	1	40	8	14/A/B/1	18/A/iii
285	D	XCV	2	130	12	14/A/B/1	18/A/iii
292	D	XCV	1	20	12	14/A/B/1	18/A/iii
325	D	XCV	1	30	12	14/A/B/1	18/A/iii
56	D	XCV	1	15	10	14/A/B/1	18/A/iii
182	D	XCV	1	35	12	14/A/B/1	18/A/iii
267	D	XCV	1	109	10	14/A/B/1	18/A/iii
364	F	XCII	1	35	10	14/A/B/1	18/A/ii
364	F	XCII	2	45	14	14/A/B/1	18/A/iii
194	F	XCIII	1	20	10	14/A/B/1	18/A/iii
358	F	XCIII	3	65	12	14/A/B/1	18/A/iii
634	G2	LXIX	1	220	12	14/A/B/1	18/A/iii
1125	I1	XXIII	1	10	8	14/A/B/1	16/B/iii
1125	I1	XXIII	2	35	12	14/A/B/1	18/A/ii
1125	I1	XXIII	2	230	8	14/A/B/1	18/A/ii
1125	I1	XXIII	1	45	10	14/A/B/1	18/A/iii
1125	I1	XXIII	12	180	12	14/A/B/1	18/A/iii
1166	I1	XXIV	1	35	10	14/A/B/1	18/A/iii
1101	I2	XXVI	1	20	10	14/A/B/1	18/A/iii
1101	I2	XXVI	1	25	12	14/A/B/1	18/A/iii
977	I3	XXVIII	3	55	12	14/A/B/1	18/A/iii
977	I3	XXVIII	1	35	16	14/A/B/1	18/A/iii
977	I3	XXVIII	1	50	30	14/A/B/1	18/A/iii
977	I3	XXVIII	1	10	12	14/A/B/1	18/A/iii
977	I3	XXVIII	1	35	20	14/A/B/1	18/A/iii
1119	I3	XXIX	1	10	16	14/A/B/1	18/A/iii
962	I4	XXX	3	65	12	14/A/B/1	18/A/iii
962	I4	XXX	5	60	10	14/A/B/1	18/A/iii
961	I4	XXX	2	45	12	14/A/B/1	18/A/iii
961	I4	XXX	1	10	10	14/A/B/1	18/A/iii
961	I4	XXX	2	35	12	14/A/B/1	18/A/iii
961	I4	XXX	4	80	10	14/A/B/1	18/A/iii
972	I4	XXXI	2	30	12	14/A/B/1	18/A/iii
1055	I4	XXXI	2	30	10	14/A/B/1	18/A/iii
880	I5	XXXIII	1	15	8	14/A/B/1	18/A/ii
880	I5	XXXIII	5	105	14	14/A/B/1	18/A/iii

Anuradhapura: The Artefacts

880	I5	XXXIII	3	25	12	14/A/B/1	18/A/ii
1383	I6	XXXVI	1	10	10	14/A/B/1	18/A/ii
1383	I6	XXXVI	1	25	14	14/A/B/1	18/A/ii
1106	I6	XXXVI	1	15	12	14/A/B/1	18/A/ii
834	I6	XXXVII	1	30	14	14/A/B/1	18/A/ii
834	I6	XXXVII	2	35	12	14/A/B/1	18/A/ii
856	I6	XXXVIII	1	30	14	14/A/B/1	18/A/ii
831	I6	XXXIX	1	25	10	14/A/B/1	18/A/ii
850	I6	XL	3	45	12	14/A/B/1	18/A/ii
837	I7	XXXV	1	15	16	14/A/B/1	18/A/ii
837	I7	XXXV	4	55	12	14/A/B/1	18/A/ii
837	I7	XXXV	1	20	10	14/A/B/1	18/A/ii
843	I7	XLII	1	35	14	14/A/B/1	18/A/ii
812	I7	XLIV	2	30	12	14/A/B/1	18/A/ii
798	I7	XLVI	2	45	10	14/A/B/1	18/A/ii
788	I8	LIII	1	15	12	14/A/B/1	18/A/ii
1407	J2	XIV	1	30	14	14/A/B/1	18/A/ii
1476	J3	XVII	1	20	12	14/A/B/1	16/B/ii
1476	J3	XVII	1	35	14	14/A/B/1	18/A/ii
1381	J3	XVII	1	10	12	14/A/B/1	18/A/ii
1475	J3	XVII	2	50	14	14/A/B/1	18/A/ii
1474	J3	XVII	4	75	12	14/A/B/1	18/A/ii
1382	J3	XVII	1	15	12	14/A/B/1	18/A/ii
1381	J3	XVII	1	40	12	14/A/B/1	18/A/ii
1362	J3	XVII	1	40	10	14/A/B/1	18/A/ii
1293	J3	XVI	1	40	10	14/A/B/1	18/A/ii
1293	J3	XVI	1	45	12	14/A/B/1	18/A/ii
1293	J3	XVI	1	20	12	14/A/B/1	18/A/ii
1340	J3	XVII	2	60	12	14/A/B/1	18/A/ii
1293	J3	XVI	3	60	12	14/A/B/1	18/A/ii
1293	J3	XVI	1	45	12	14/A/B/1	18/A/ii
1175	J4	XVIII	1	30	20	14/A/B/1	16/B/ii
1216	J4	XIX	1	10	10	14/A/B/1	16/B/ii
1216	J4	XIX	1	10	8	14/A/B/1	17/B/ii
1295	J4	XIX	1	20	14	14/A/B/1	18/A/ii
1175	J4	XVIII	3	60	12	14/A/B/1	18/A/ii
1175	J4	XVIII	1	15	12	14/A/B/1	18/A/ii
1216	J4	XIX	2	35	12	14/A/B/1	18/A/ii
1215	J4	XIX	5	85	10	14/A/B/1	18/A/ii
1292	J4	XIX	2	25	14	14/A/B/1	18/A/ii
1290	J4	XIX	1	25	16	14/A/B/1	18/A/ii
1191	J5	XXI	1	20	14	14/A/B/1	16/B/ii
1174	J5	XX	2	65	10	14/A/B/1	18/A/ii
1208	J5	XXI	1	10	12	14/A/B/1	18/A/ii
1172	J5	XXII	1	40	12	14/A/B/1	18/A/ii
1714	K1	VI	1	20	14	14/A/B/1	18/A/ii

Variant 14/A/B/2

Form 14 is a medium to small-sized jar. Variant 14/A/B/2 has a slightly thickened rim, which has slighter

flare and beading at the base. It is only found in periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	45	12	14/A/B/2	18/A/ii
1124	I1	XXV	2	55	10	14/A/B/2	18/A/ii
1101	I2	XXVI	1	20	10	14/A/B/2	18/A/ii
1101	I2	XXVI	3	100	12	14/A/B/2	18/A/ii

Unglazed Ceramics

977	I3	XXVIII	1	25	12	14/A/B/2	18/A/iii
977	I3	XXVIII	3	130	14	14/A/B/2	18/A/iii
1119	I3	XXIX	2	25	10	14/A/B/2	18/A/iii
1119	I3	XXIX	8	105	12	14/A/B/2	18/A/iii
914	I4	XXXII	1	15	12	14/A/B/2	16/B/iii
961	I4	XXX	1	25	12	14/A/B/2	18/A/ii
964	I4	XXXII	1	25	12	14/A/B/2	18/A/iii
1293	J3	XVI	2	85	14	14/A/B/2	18/A/ii
1293	J3	XVI	1	65	12	14/A/B/2	18/A/ii
1293	J3	XVI	1	65	12	14/A/B/2	18/A/ii
1216	J4	XIX	1	10	14	14/A/B/2	18/A/iii
1244	J4	XIX	1	40	16	14/A/B/2	18/A/iii
1172	J5	XXII	3	85	10	14/A/B/2	18/A/iii
1172	J5	XXII	1	40	14	14/A/B/2	18/A/iii

Variant 14/B/A/1

Form 14 is a medium to small-sized jar. Variant 14/B/A/1 has a slightly thickened rim, which is everted

and flattened dorsally. It first occurs in period K and has concentrations in periods J and I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
3	A1	CXV	1	115	12	14/B/A/1	18/A/iii
364	F	XCII	4	125	10	14/B/A/1	18/A/iii
1125	I1	XXIII	2	50	14	14/B/A/1	18/A/iii
1125	I1	XXIII	1	30	18	14/B/A/1	18/A/iii
1125	I1	XXIII	4	100	10	14/B/A/1	18/A/iii
1125	I1	XXIII	6	135	10	14/B/A/1	18/A/iii
1149	I1	XXIV	1	30	10	14/B/A/1	18/A/iii
1101	I2	XXVI	1	25	10	14/B/A/1	18/A/iii
1101	I2	XXVI	1	20	14	14/B/A/1	18/A/iii
1111	I2	XXVII	1	75	12	14/B/A/1	18/A/iii
977	I3	XXVIII	3	65	12	14/B/A/1	18/A/iii
977	I3	XXVIII	3	165	14	14/B/A/1	18/A/iii
977	I3	XXVIII	8	155	12	14/B/A/1	18/A/iii
977	I3	XXVIII	1	30	12	14/B/A/1	18A8iii
837	I7	XXXV	2	35	10	14/B/A/1	18/A/iii
1485	J2	XV	2	100	22	14/B/A/1	18/B/I
1293	J3	XVI	1	35	12	14/B/A/1	18/A/iii
1175	J4	XVIII	2	50	18	14/B/A/1	18/A/iii
1172	J5	XXII	4	80	26	14/B/A/1	18/A/iii
1172	J5	XXII	4	95	16	14/B/A/1	18/A/iii
1616	K3	VIII	1	18	16	14/B/A/1	18/A/iii
1659	K3	IX	1	20	13	14/B/A/1	18/A/iii

Variant 14/C/A/1

Form 14 is a medium to small-sized jar. Variant 14/C/A/1 has a rolled-over, rounded rim internally

marked with a finger groove. It is distributed between period A and K and has a concentration in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	30	12	14/C/A/1	18/A/iii
4	A	CXIV	1	40	12	14/C/A/1	18/A/iii
4	A	CXIV	2	30	10	14/C/A/1	18/A/iii
4	A	CXIV	1	30	12	14/C/A/1	18/A/iii
4	A	CXIV	1	20	12	14/C/A/1	18/A/iii
25	B1	XCVII	1	10	8	14/C/A/1	18/A/iii
9	B4	CVI	1	35	16	14/C/A/1	18/A/iii

Anuradhapura: The Artefacts

359	D	XCV	1	15	14	14/C/A/1	18/A/iii
56	D	XCV	1	20	10	14/C/A/1	18/A/iii
358	F	XCIII	1	20	8	14/C/A/1	18/A/iii
638	G2	LXXIII	1	30	14	14/C/A/1	18/A/ii
634	G2	LXIX	1	15	12	14/C/A/1	18/A/iii
616	G2	LXX	1	55	14	14/C/A/1	18/A/iii
632	G4	LXXXIII	1	45	12	14/C/A/1	18/A/ii
424	G5	XCI	1	20	8	14/C/A/1	18/A/iii
424	G5	XCI	1	20	14	14/C/A/1	18/A/iii
426	G5	LXXXVIII	1	5	12	14/C/A/1	18/A/iii
1125	I1	XXIII	1	10	12	14/C/A/1	16/B/iii
1147	I1	XXIV	1	15	22	14/C/A/1	18/A/ii
1125	I1	XXIII	1	20	10	14/C/A/1	18/A/ii
1125	I1	XXIII	3	50	10	14/C/A/1	18/A/ii
1101	I2	XXVI	1	15	10	14/C/A/1	16/B/iii
1101	I2	XXVI	1	75	14	14/C/A/1	18/A/iii
1101	I2	XXVI	3	45	10	14/C/A/1	18/A/iii
1101	I2	XXVI	1	20	12	14/C/A/1	18/A/iii
977	I3	XXVIII	1	20	14	14/C/A/1	16/B/ii
977	I3	XXVIII	5	80	12	14/C/A/1	18/A/iii
977	I3	XXVIII	7	155	12	14/C/A/1	18/A/iii
977	I3	XXVIII	1	30	12	14/C/A/1	18/A/ii
977	I3	XXVIII	5	70	8	14/C/A/1	18/A/iii
961	I4	XXX	1	15	10	14/C/A/1	16/B/iii
961	I4	XXX	1	10	10	14/C/A/1	18/A/iii
961	I4	XXX	1	10	12	14/C/A/1	18/A/ii
961	I4	XXX	2	35	14	14/C/A/1	18/A/ii
961	I4	XXX	1	20	18	14/C/A/1	18/A/ii
961	I4	XXX	1	15	10	14/C/A/1	18/A/ii
975	I4	XXXI	1	10	12	14/C/A/1	18/A/ii
959	I4	XXXI	1	15	14	14/C/A/1	18/A/iii
902	I4	XXXI	1	15	8	14/C/A/1	18/A/iii
964	I4	XXXII	1	15	12	14/C/A/1	18/A/iii
964	I4	XXXII	1	15	12	14/C/A/1	18/A/iii
914	I4	XXXII	2	30	14	14/C/A/1	18/A/iii
905	I4	XXXII	1	10	10	14/C/A/1	18/A/iii
880	I5	XXXIII	1	15	8	14/C/A/1	16/B/i
880	I5	XXXIII	1	25	14	14/C/A/1	18/A/ii
880	I5	XXXIII	1	20	14	14/C/A/1	18/A/iii
1106	I6	XXXVI	1	10	8	14/C/A/1	16/B/i
1383	I6	XXXVI	1	15	12	14/C/A/1	16/B/iii
850	I6	XL	5	50	10	14/C/A/1	18/A/ii
1394	I6	XXXVI	1	55	12	14/C/A/1	18/A/iii
1106	I6	XXXVI	1	15	12	14/C/A/1	18/A/iii
834	I6	XXXVII	1	15	10	14/C/A/1	18/A/iii
831	I6	XXXIX	2	20	10	14/C/A/1	18/A/iii
850	I6	XL	7	100	10	14/C/A/1	18/A/iii
791	I7	XLVII	1	15	10	14/C/A/1	16/A/iii
837	I7	XXXV	1	15	10	14/C/A/1	18/A/ii
837	I7	XXXV	1	30	10	14/C/A/1	18/A/i
837	I7	XXXV	2	55	14	14/C/A/1	18/A/iii
847	I7	XLII	2	20	14	14/C/A/1	18/A/iii
791	I7	XLVII	2	25	10	14/C/A/1	18/A/iii
767	I8	LX	1	30	12	14/C/A/1	17/B/i
767	I8	LX	2	35	10	14/C/A/1	18/A/iii
788	I8	LIII	1	10	8	14/C/A/1	18/A/iii
788	I8	LX	1	10	14	14/C/A/1	18/A/iii

Unglazed Ceramics

1407	J2	XIV	1	20	18	14/C/A/1	18/A/iii
1293	J3	XVI	1	15	12	14/C/A/1	16/B/iii
1293	J3	XVI	1	15	12	14/C/A/1	18/A/iii
1293	J3	XVI	2	40	14-16	14/C/A/1	18/A/iii
1293	J3	XVI	2	40	14	14/C/A/1	18/A/iii
1293	J3	XVI	1	15	12	14/C/A/1	18/A/iii
1293	J3	XVI	1	15	12	14/C/A/1	18/A/iii
1175	J4	XVIII	1	35	12	14/C/A/1	18/A/iii
1175	J4	XVIII	2	20	16	14/C/A/1	18/A/iii
1174	J5	XX	1	20	12	14/C/A/1	18/A/ii
1615	K3	X	3	65	34	14/C/A/1	18/A/iii
1615	K3	X	1	15	15	14/C/A/1	18/A/iii

Variant 14/C/B/1

Form 14 is a medium to small-sized jar. Variant 14/C/B/1 has a flaring, rolled-over, rounded rim

internally marked with a finger groove. Its distribution is between periods J and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
616	G2	LXX	1	15	12	14/C/B/1	18/A/ii
616	G2	LXX	1	15	10	14/C/B/1	18/A/iii
1125	I1	XXIII	1	10	10	14/C/B/1	18/A/ii
977	I3	XXVIII	1	15	10	14/C/B/1	18/A/iii
908	I4	XXXI	1	25	12	14/C/B/1	18/A/ii
961	I4	XXX	2	20	10	14/C/B/1	18/A/iii
961	I4	XXX	1	10	12	14/C/B/1	18/A/iii
1293	J3	XVI	1	25	12	14/C/B/1	18/A/iii
1293	J3	XVI	1	25	12	14/C/B/1	18/A/iii
1216	J4	XIX	1	10	16	14/C/B/1	18/A/iii

Variant 14/D/A/1

Form 14 is a medium to small-sized jar. Variant 14/D/A/1 has a heavy, flaring, rolled-over, rounded rim.

Its earliest occurrence is in period K and final occurrence is in period A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	10	14/D/A/1	18/A/ii
4	A	CXIV	1	30	12	14/D/A/1	18/A/ii
4	A	CXIV	2	80	12	14/D/A/1	18/A/iii
4	A	CXIV	8	270	12	14/D/A/1	18/A/iii
4	A	CXIV	2	70	14	14/D/A/1	18/A/iii
4	A	CXIV	2	125	10	14/D/A/1	18/A/iii
4	A	CXIV	1	20	14	14/D/A/1	18/A/iii
4	A	CXIV	1	65	10	14/D/A/1	18/A/iii
25	B1	XCVII	1	30	14	14/D/A/1	18/A/iii
24	B2	C	1	20	10	14/D/A/1	18/A/iii
27	B2	C	1	40	12	14/D/A/1	18/A/iii
9	B4	CVI	1	30	10	14/D/A/1	18/A/iii
9	B4	CVI	1	45	12	14/D/A/1	18/A/iii
325	D	XCV	1	55	12	14/D/A/1	18/A/ii
325	D	XCV	1	35	12	14/D/A/1	18/A/ii
272	D	XCV	1	15	14	14/D/A/1	18/A/iii
296	D	XCV	1	30	12	14/D/A/1	18/A/iii
299	D	XCV	1	20	10	14/D/A/1	18/A/iii
324	D	XCV	1	15	12	14/D/A/1	18/A/iii
299	D	XCV	1	30	10	14/D/A/1	18/B/ii
367	F	XCH	1	40	14	14/D/A/1	18/A/iii

Anuradhapura: The Artefacts

264	F	XCIII	1	20	10	14/D/A/1	18/A/ii
358	F	XCIII	1	15	12	14/D/A/1	18/A/ii
264	F	XCIII	1	65	12	14/D/A/1	18/A/ii
264	F	XCIII	4	145	12	14/D/A/1	18/A/ii
638	G2	LXXIII	3	120	30	14/D/A/1	18/B/i
634	G2	LXIX	1	15	14	14/D/A/1	18/A/i
634	G2	LXIX	1	45	14	14/D/A/1	18/A/ii
616	G2	LXX	1	30	14	14/D/A/1	18/A/ii
470	G4	LXXXI	1	40	12	14/D/A/1	18/A/ii
437	G5	LXXXVII	1	30	16	14/D/A/1	18/A/ii
1125	I1	XXIII	6	180	12	14/D/A/1	18/A/i
1125	I1	XXIII	1	25	14	14/D/A/1	18/A/ii
1101	I2	XXVI	3	60	12	14/D/A/1	18/A/i
1101	I2	XXVI	1	30	10	14/D/A/1	18/A/ii
1101	I2	XXVI	3	70	12	14/D/A/1	18/A/ii
977	I3	XXVIII	1	25	12	14/D/A/1	18/A/ii
1119	I3	XXIX	1	10	10	14/D/A/1	18/A/ii
1214	I3	XXIX	1	40	14	14/D/A/1	18/A/ii
961	I4	XXX	2	65	12	14/D/A/1	18/A/ii
961	I4	XXX	2	85	10	14/D/A/1	18/A/ii
961	I4	XXX	1	25	16	14/D/A/1	18/A/ii
961	I4	XXX	5	95	10	14/D/A/1	18/A/ii
914	I4	XXXII	1	25	12	14/D/A/1	18/A/ii
880	I5	XXXIII	4	75	10	14/D/A/1	18/A/ii
834	I6	XXXVII	1	30	12	14/D/A/1	18/A/ii
831	I6	XXXIX	1	15	8	14/D/A/1	18/A/ii
850	I6	XL	2	60	10	14/D/A/1	18/A/ii
850	I6	XL	1	15	10	14/D/A/1	18/A/ii
832	I7	XLII	1	15	12	14/D/A/1	18/A/ii
788	I8	LIII	1	20	12	14/D/A/1	18/A/ii
729	I8	LIII	1	10	12	14/D/A/1	18/A/ii
768	I8	LX	2	25	14	14/D/A/1	18/A/ii
767	I8	LX	1	30	12	14/D/A/1	18/A/ii
1407	J2	XIV	1	55	14	14/D/A/1	18/A/ii
1489	J2	XV	1	10	14	14/D/A/1	18/A/ii
1485	J2	XV	1	20	12	14/D/A/1	18/A/ii
1485	J2	XV	1	35	14	14/D/A/1	18/A/ii
1473	J3	XVII	2	55	10	14/D/A/1	17/B/i
1473	J3	XVII	1	65	10	14/D/A/1	17/B/i
1474	J3	XVII	1	30	10	14/D/A/1	18/A/i
1474	J3	XVII	1	30	10	14/D/A/1	18/A/ii
1293	J3	XVI	1	15	12	14/D/A/1	18/A/ii
1293	J3	XVI	1	45	16	14/D/A/1	18/A/ii
1215	J4	XIX	1	35	10	14/D/A/1	18/A/ii
1616	K3	VIII	1	15	12	14/D/A/1	18/A/ii

Variant 14/D/A/2

Form 14 is a medium to small-sized jar. Variant 14/D/A/2 has a heavy, flaring, rolled-over rim. Rim is flattened dorsally. Its earliest occurrence is in period J and final occurrence is in period A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	25	10	14/D/A/2	18/A/ii
4	A	CXIV	1	25	10	14/D/A/2	18/A/ii
325	D	XCV	1	35	12	14/D/A/2	18/A/ii
269	D	XCV	1	20	12	14/D/A/2	18/A/ii
86	D	XCV	1	15	10	14/D/A/2	18/A/ii

Unglazed Ceramics

616	G2	LXX	1	20	14	14/D/A/2	18/A/iii
638	G2	LXXIII	3	50	12	14/D/A/2	18/A/iii
630	G3	LXXVI	1	30	12	14/D/A/2	18/A/ii
632	G4	LXXXIII	3	100	16	14/D/A/2	18/A/iii
632	G4	LXXXIII	2	25	12	14/D/A/2	18/A/iii
1206	I6	XXXVI	1	30	10	14/D/A/2	18/A/iii
1206	I6	XXXVI	1	30	8	14/D/A/2	18/A/iii
834	I6	XXXVII	1	25	14	14/D/A/2	18/A/iii
834	I6	XXXVII	3	70	10	14/D/A/2	18/A/iii
837	I7	XXXV	1	40	8	14/D/A/2	18/A/ii
791	I7	XLVII	1	10	10	14/D/A/2	18/A/ii
791	I7	XLVII	1	55	16	14/D/A/2	18/A/ii
791	I7	XLVII	1	15	14	14/D/A/2	18/A/ii
790	I7	XLVII	1	25	14	14/D/A/2	18/A/ii
837	I7	XXXV	1	20	14	14/D/A/2	18/A/iii
791	I7	XLVII	2	30	10	14/D/A/2	18/A/iii
788	I8	LIII	1	30	8	14/D/A/2	18/A/ii
767	I8	LX	1	45	12	14/D/A/2	18/A/ii
767	I8	LX	2	30	14	14/D/A/2	18/A/ii
767	I8	LX	2	35	14	14/D/A/2	18/A/iii
1340	J3	XVII	1	20	12	14/D/A/2	18/A/ii
1216	J4	XIX	1	20	12	14/D/A/2	18/A/ii

Variant 14/E/A/1

Form 14 is a medium to small-sized jar. Variant 14/E/A/1 has a heavy, flaring, rolled-over rim. Rim is

everted and elongated. It is a useful chronological indicator as it is only distributed in periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	15	14	14/E/A/1	18/A/ii
1125	I1	XXIII	1	15	12	14/E/A/1	18/A/ii
1125	I1	XXIII	1	40	20	14/E/A/1	18/A/iii
1125	I1	XXIII	5	135	10,12	14/E/A/1	18/A/iii
1125	I1	XXIII	1	10	12	14/E/A/1	18/A/iii
1101	I2	XXVI	1	70	10	14/E/A/1	18/A/ii
1116	I2	XXVII	1	30	14	14/E/A/1	18/A/ii
1101	I2	XXVI	1	20	12	14/E/A/1	18/A/iii
1101	I2	XXVI	5	110	12	14/E/A/1	18/A/iii
1101	I2	XXVI	1	20	14	14/E/A/1	18/A/iii
1101	I2	XXVI	1	10	10	14/E/A/1	18/A/iii
977	I3	XXVIII	1	25	20	14/E/A/1	18/A/iii
977	I3	XXVIII	2	60	16	14/E/A/1	18/A/iii
964	I4	XXXII	1	40	14	14/E/A/1	18/A/ii
961	I4	XXX	2	40	14	14/E/A/1	18/A/iii
962	I4	XXX	1	20	16	14/E/A/1	18/A/iii
961	I4	XXX	1	20	16	14/E/A/1	18/A/iii
961	I4	XXX	2	40	12	14/E/A/1	18/A/iii
964	I4	XXXII	1	10	14	14/E/A/1	18/A/iii
912	I4	XXXII	1	20	18	14/E/A/1	18/A/iii
880	I5	XXXIII	1	10	22	14/E/A/1	16/B/iii
1206	I6	XXXVI	1	20	18	14/E/A/1	18/A/iii
856	I6	XXXVIII	1	40	10	14/E/A/1	18/A/iii
837	I7	XXXV	1	30	14	14/E/A/1	18/A/ii
1407	J2	XIV	1	20	14	14/E/A/1	18/A/ii
1293	J3	XVI	1	40	18	14/E/A/1	18/A/iii
1172	J5	XXII	1	50	12	14/E/A/1	18/A/iii

Variant 14/E/A/2

Form 14 is a medium to small-sized jar. Variant 14/E/A/2 has a heavy, notably flaring rolled-over rim. Rim is elongated and more everted. It is a useful

chronological indicator as it is only distributed between periods H and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
730	H1	LXIII	1	20	18	14/E/A/2	18/A/iii
1125	I1	XXIII	3	35		14/E/A/2	18/A/ii
1125	I1	XXIII	1	40	14	14/E/A/2	18/A/ii
1125	I1	XXIII	7	195	10,12	14/E/A/2	18/A/ii
1153	I1	XXIV	1	10	10	14/E/A/2	18/A/ii
1125	I1	XXIII	10	365		14/E/A/2	18/A/iii
1125	I1	XXIII	1	15	10	14/E/A/2	18/A/iii
1124	I1	XXV	1	30	18	14/E/A/2	18/B/ii
1101	I2	XXVI	3	100	14	14/E/A/2	18/A/ii
1101	I2	XXVI	1	10	10	14/E/A/2	18/A/iii
1119	I3	XXIX	1	15	12	14/E/A/2	18/A/ii
977	I3	XXVIII	2	75	14	14/E/A/2	18/A/iii
977	I3	XXVIII	10	305	12	14/E/A/2	18/A/iii
977	I3	XXVIII	7	185	18	14/E/A/2	18/A/iii
977	I3	XXVIII	4	15	18	14/E/A/2	18/A/iii
977	I3	XXVIII	8	160	10	14/E/A/2	18/A/iii
970	I4	XXXI	1	35	12	14/E/A/2	18/A/ii
961	I4	XXX	1	35	12	14/E/A/2	18/A/iii
962	I4	XXX	1	25	14	14/E/A/2	18/A/iii
961	I4	XXX	4	65	10	14/E/A/2	18/A/iii
961	I4	XXX	1	10	12	14/E/A/2	18/A/iii
961	I4	XXX	3	105	12	14/E/A/2	18/A/iii
905	I4	XXXII	1	40	14	14/E/A/2	18/A/iii
1098	I4	XXXI	1	40	16	14/E/A/2	18/B/ii
837	I7	XXXV	1	20	14	14/E/A/2	17/B/ii
837	I7	XXXV	3	55	10	14/E/A/2	18/A/iii
812	I7	XLIV	1	20	10	14/E/A/2	18/A/iii
1407	J2	XIV	1	20	12	14/E/A/2	16/B/ii
1403	J3	XVII	1	20	14	14/E/A/2	18/A/iii
1222	J4	XIX	1	20	12	14/E/A/2	18/A/ii

Variant 14/E/B/1

Form 14 is a medium to small-sized jar. Variant 14/E/B/1 has a heavy, flaring, rolled-over rim. Rim is elongated

and more everted. It is a useful chronological indicator as it is only distributed in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	20	12	14/E/B/1	18/A/ii
977	I3	XXVIII	1	20	18	14/E/B/1	18/A/iii
880	I5	XXXIII	1	35	12	14/E/B/1	18/A/iii
834	I6	XXXVII	1	20	10	14/E/B/1	18/A/iii
837	I7	XXXV	1	20	10	14/E/B/1	18/A/iii
837	I7	XXXV	1	20	10	14/E/B/1	18/A/iii

Variant 14/F/A/1

Form 14 is a medium to small-sized jar. Variant 14/F/A/1 has a heavy, flaring, rolled-over rim. Rim is more

elongated and tapers inwards. It is a useful chronological indicator as it is only distributed in period I.

Unglazed Ceramics

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
977	I3	XXVIII	1	30	24	14/F/A/1	18/A/iii
798	I7	XLVI	1	35	16	14/F/A/1	18/A/ii
837	I7	XXXV	1	15	24	14/F/A/1	18/A/iii

Variant 14/I/A/1

Form 14 is a medium to small-sized jar. Variant 14/I/A/1 has a heavy, flaring, rolled-over rim. Rim is somewhat

pointed. It is distributed between periods J and A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	40	14	14/I/A/1	18/A/iii
51	B1	XCIX	1	35	14	14/I/A/1	18/A/iii
26	B3	CIV	1	10	14	14/I/A/1	18/A/iii
356	D	XCV	1	15	16	14/I/A/1	18/A/ii
1153	I1	XXIV	1	20	12	14/I/A/1	18/A/iii
837	I7	XXXV	1	25	14	14/I/A/1	18/A/iii
1175	J4	XVIII	1	20	12	14/I/A/1	18/A/iii

Variant 14/J/A/1

Form 14 is a medium to small-sized jar. Variant 14/J/A/1 has a heavy, flaring, rolled-over rim. Rim is everted and

grooved in middle. It is only found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
977	I3	XXVIII	1	50	18	14/J/A/1	18/A/iii
1119	I3	XXIX	1	30	16	14/J/A/1	18/A/iii
964	I4	XXXII	1	35	14	14/J/A/1	18/A/iii

Variant 14/M/A/1

Form 14 is a medium to small-sized jar. Variant 14/M/A/1 has a heavy, flaring, rolled-over rim. Rim is everted and pointed with a hollow at its base. Its earliest

appearance is in period J, but it is more widespread in younger levels.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	80	14	14/M/A/1	18/A/I
4	A	CXIV	1	40	14	14/M/A/1	18/A/iii
4	A	CXIV	1	30	14	14/M/A/1	18/A/iii
4	A	CXIV	3	90	12	14/M/A/1	18/A/iii
4	A	CXIV	2	45	12	14/M/A/1	18/A/iii
4	A	CXIV	1	55	12	14/M/A/1	18/A/iii
4	A	CXIV	1	10	12	14/M/A/1	18/A/iii
3	A1	CXV	1	40	14	14/M/A/1	18/A/iii
27	B2	C	1	60	14	14/M/A/1	18/A/i
158	D	XCV	1	30	14	14/M/A/1	18/A/i
271	D	XCV	1	30	18	14/M/A/1	18/A/i
158	D	XCV	1	25	12	14/M/A/1	18/A/iii
272	D	XCV	1	25	14	14/M/A/1	18/A/iii
295	D	XCV	1	10	10	14/M/A/1	18/A/iii
355	F	XCIII	1	35	10	14/M/A/1	18/A/i
834	I6	XXXVII	2	20	12	14/M/A/1	18/A/iii
1407	J2	XIV	1	20	18	14/M/A/1	18/A/iii

Variant 14/O/A/1

Form 14 is a medium to small-sized jar. Variant

14/O/A/1 has a heavy, flaring, rolled-over rim. Rim is

triangular, tapers inwards and has a single groove on the interior. Its distribution is restricted to period J and an

early phase of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1101	I2	XXVI	1	25	12	14/O/A/1	18/A/ii
1350	J3	XVII	1	30	12	14/O/A/1	18/A/ii
1476	J3	XVII	2	35	12	14/O/A/1	18/A/ii

6.3.2.13 Form 15: jar or mutti

Form 15 is a large-sized jar with a mouth much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan

mutti, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.22).

Variant 15/A/A/1

Form 15 is a large jar. Variant 15/A/A/1 has a somewhat, thickened, rolled-over rim. Its earliest occurrence is in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
256	D	XCV	1	30	12	15/A/A/1	18/A/ii
325	D	XCV	1	65	16	15/A/A/1	18/B/i
1125	I1	XXIII	1	35	12	15/A/A/1	18/A/i
1125	I1	XXIII	1	25	22	15/A/A/1	18/A/ii
1125	I1	XXIII	2	45	20	15/A/A/1	18/A/ii
1174	J5	XX	1	40	28	15/A/A/1	18/B/i

Variants 15/B/A/1 and 15/B/A/2

Form 15 is a large jar. Variant 15/B/A/1 has a thick rolled-over rim and 15/B/A/2 has an external groove. The earliest occurrence of both forms is in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
9	B4	CVI	1	70	28	15/B/A/1	18/B/i
424	G5	XCI	1	50	23	15/B/A/1	18/A/ii
1125	I1	XXIII	2	100	18	15/B/A/1	18/B/i
1119	I3	XXIX	1	35	16	15/B/A/1	18/A/i
837	I7	XXXV	1	10	20	15/B/A/1	18/A/ii
837	I7	XXXV	1	50	22	15/B/A/1	18/B/i
767	I8	LX	1	20	12	15/B/A/2	18/A/ii

Variant 15/D/A/1

Form 15 is a large jar. Variant 15/D/A/1 has a thick rolled-over and rounded rim. The earliest occurrence of the form is in period K with a concentration in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
256	D	XCV	1	35	12	15/D/A/1	18/A/i
272	D	XCV	1	80	14	15/D/A/1	18/B/i
285	D	XCV	1	190	16	15/D/A/1	18/B/i
628	G2	LXXIII	1	50	14	15/D/A/1	18/A/i
1125	I1	XXIII	1	50	16	15/D/A/1	18/A/ii
1125	I1	XXIII	2	145	16	15/D/A/1	18/B/i
1101	I2	XXVI	1	135	24	15/D/A/1	18/B/i
1101	I2	XXVI	3	150	20	15/D/A/1	18/B/i
964	I4	XXXII	1	130	30	15/D/A/1	18/B/i
1476	J3	XVII	1	35	17	15/D/A/1	18/A/ii
1216	J4	XIX	1	25	16	15/D/A/1	18/A/iii
1295	J4	XIX	1	60	20	15/D/A/1	18/B/i
1615	K3	X	1	55	18	15/D/A/1	18/A/iii

Variant 15/D/B/1

Form 15 is a large jar. Variant 15/D/B/1 has a thick rolled-over, rounded and flaring rim. The earliest occurrence of the form is in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
209	F	XCIII	1	40	26	15/D/B/1	18/B/ii
1125	I1	XXIII	1	85	22	15/D/B/1	18/A/iii
1125	I1	XXIII	2	90	18	15/E/A/1	18/A/iii

Variant 15/E/A/1

Form 15 is a large jar. Variant 15/E/A/1 has a thick rolled-over, rounded rim. It is everted and elongated. It is only found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	2	90	18	15/E/A/1	18/A/iii
791	I7	XLVII	1	15	18	15/E/A/1	18/A/iii

Variant 15/F/A/1

Form 15 is a large jar. Variant 15/F/A/1 has a thick rolled-over, rounded rim. It is everted and slightly pointed. Its earliest occurrence is in period K, but it has a concentration in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
366	F	XCII	1	35	10	15/F/A/1	18/A/iii
1125	I1	XXIII	1	45	16	15/F/A/1	18/A/iii
1101	I2	XXVI	1	20	24	15/F/A/1	18/A/iii
977	I3	XXVIII	3	95	16	15/F/A/1	18/A/iii
1616	K3	VIII	1	5	18	15/F/A/1	18/A/iii

6.3.2.14 Form 18: Long-necked jar or mutti/kale**Variants 18/A/A/1, 18/B/A/1, 18/C/A/1 and 18/D/A/1**

This form is characterized by a narrow mouth on a high neck with a thickened and out-turned lip. 18/A/A/1 has a slightly thickened, rolled over rim, 18/B/A/1 has an internal finger groove and 18/C/A/1 has an internal finger groove and is everted. 18/D/A/1 is folded over with a pointed lip, grooved in mid-rim externally. 18/A/A/1 first occurs in period J and 18/B/A/1, 18/C/A/1 and 18/D/A/1 in period I (Fig. 6.23).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	40	10	18/A/A/1	18/A/iii
437	G5	LXXXVII	1	30	12	18/A/A/1	18/A/iii
1101	I2	XXVI	1	25	14	18/A/A/1	18/A/iii
1222	J4	XIX	1	5	10	18/A/A/1	17/B/iv
4	A	CXIV	1	25	10	18/B/A/1	18/A/iii
5	B5	CXII	1	60	10	18/B/A/1	18/A/iii
416	G5	XCI	2	75	16	18/B/A/1	18/A/iii
977	I3	XXVIII	1	40	20	18/B/A/1	18/B/iii
4	A	CXIV	1	20	10	18/C/A/1	18/A/iii
970	I4	XXXI	1	25	20	18/C/A/1	18/A/iii
837	I7	XXXV	1	100	24	18/D/A/1	18/B/1

6.3.2.15 Form 20: Jar or kotale

Form 20 is a jar with a mouth much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *kotale*, used to

hold drinking water (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 172) (Fig. 6.23).

Variants 20/A/A/1, 20/A/A/2, 20/A/B/1 and 20/F/A/1

This form is characterized by a narrow mouth on a high neck with a thickened and out-turned lip. 20/A/A/1 has a rounded lip, 20/A/A/2 is more everted, 20/A/B/1 is more

flaring and 20/F/A/1 has a folded, over-everted rim. 20/A/A/2 and 20/A/B/1 have early appearances in the sequence, but 20/A/A/1 and 20/F/A/1 are late forms.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	40	10	20/A/A/1	18/A/ii
1290	J4	XIX	1	15	10	20/A/A/2	18/A/ii
1215	J4	XIX	3	50	20	20/A/A/2	16/B/ii
4	A	CXIV	1	25	8	20/A/B/1	18/A/iii
1213	I3	XXIX	1	15	12	20/A/B/1	18/A/ii
4	A	CXIV	2	115	10	20/F/A/1	18/A/ii
17	B5	CXIII	1	70	10	20/F/A/1	18/A/ii
56	D	XCV	1	70	10	20/F/A/1	18/A/ii

6.3.2.16 Form 22: Jar or kotale

Form 22 is a jar with a mouth much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *kotale*, which

is used for drinking water (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 172) (Fig. 6.23).

Variant 22/A/A/2

This variant is characterized by a very narrow mouth on a high neck with a thickened and everted lip. The single example of this form was recovered from period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
834	I6	XXXVII	1	10	10	22/A/A/2	18/A/ii

6.3.2.17 Form 23: Jar or mutti

Form 11 is a jar with no neck and a mouth which is much smaller than its belly. Deraniyagala has noted similarities between its form and that of the traditional

Sri Lankan *mutti*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.24).

Variant 23/A/A/1

This jar is characterized by a raised and rolled-over rim with no neck. This variant is a relative latecomer to the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	80	14	23/A/A/1	18/A/ii
4	A	CXIV	1	50	14	23/A/A/1	18/A/iii
58	B1	XCVI	1	35	10	23/A/A/1	18/A/iii
51	B1	XCIX	1	110	12	23/A/A/1	18/A/iii
27	B2	C	5	640	30	23/A/A/1	18/A/ii
24	B2	C	6	275	18	23/A/A/1	18/A/iii
24	B2	C	2	140	16	23/A/A/1	18/A/iii
16	B3	CIII	3	440	14	23/A/A/1	18/A/ii
19	B4	CX	1	45	18	23/A/A/1	18/A/ii
9	B4	CVI	1	585	20	23/A/A/1	18/A/iii
5	B5	CXII	9	535	18	23/A/A/1	18/A/iii
263	C	XCV	13	900	14	23/A/A/1	18/A/ii
204	D	XCV	1	120	16	23/A/A/1	18/A/ii
284	D	XCV	1	65	16	23/A/A/1	18/A/ii
285	D	XCV	1	105	18	23/A/A/1	18/A/ii
287	D	XCV	1	50	12	23/A/A/1	18/A/ii
285	D	XCV	1	80	20	23/A/A/1	18/A/ii
352	D	XCV	1	30	16	23/A/A/1	18/A/ii

Unglazed Ceramics

178	D	XCV	1	20	12	23/A/A/1	18/A/iii
255	D	XCV	1	75	14	23/A/A/1	18/A/iii
272	D	XCV	4	280	12	23/A/A/1	18/A/iii
285	D	XCV	1	45	18	23/A/A/1	18/A/iii
324	D	XCV	1	30	16	23/A/A/1	18/A/iii
325	D	XCV	3	185	22	23/A/A/1	18/A/iii
56	D	XCV	1	75	14	23/A/A/1	18/A/iii
86	D	XCV	1	85	20	23/A/A/1	18/A/iii
365	F	XCII	1	90	22	23/A/A/1	18/A/ii
210	F	XCIII	1	195	20	23/A/A/1	18/A/ii
365	F	XCII	1	50	14	23/A/A/1	18/A/iii
358	F	XCIII	1	40	20	23/A/A/1	18/A/iii
367	F	XCII	1	90	14	23/A/A/1	18/B/ii

Variant 23/A/B/1

This jar is characterized by a raised and rolled-over rim with no neck. The rim is less prominent and there is an exterior ridge. With the exception of a single sherd in

period G, this variant is a relative latecomer to the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	95	24	23/A/B/1	18/A/ii
4	A	CXIV	14	685	22	23/A/B/1	18/A/iii
4	A	CXIV	1	105	16	23/A/B/1	18/A/iii
4	A	CXIV	8	330	20	23/A/B/1	18/A/iii
4	A	CXIV	15	610	18	23/A/B/1	18/A/iii
4	A	CXIV	8	450	26	23/A/B/1	18/A/iii
4	A	CXIV	12	520	16	23/A/B/1	18/A/iii
4	A	CXIV	14	635	26	23/A/B/1	18/A/iii
3	A1	CXV	4	180	18	23/A/B/1	18/A/ii
55	B1	XCVI	5	175	14	23/A/B/1	18/A/iii
51	B1	XCIX	5	255	18	23/A/B/1	18/A/iii
51	B1	XCIX	3	100	16	23/A/B/1	18/A/iii
9	B4	CVI	8	525	16	23/A/B/1	18/A/ii
9	B4	CVI	7	495	16	23/A/B/1	18/A/ii
9	B4	CVI	3	100	18	23/A/B/1	18/A/iii
9	B4	CVI	6	255	14	23/A/B/1	18/A/iii
5	B5	CXII	2	170	30	23/A/B/1	18/A/iii
263	C	XCV	8	825	20	23/A/B/1	18/A/iii
263	C	XCV	1	55	24	23/A/B/1	18/A/iii
205	D	XCV	1	25	14	23/A/B/1	18/A/ii
212	D	XCV	1	60	18	23/A/B/1	18/A/ii
251	D	XCV	1	35	14	23/A/B/1	18/A/ii
254	D	XCV	3	125	26	23/A/B/1	18/A/ii
287	D	XCV	1	35	14	23/A/B/1	18/A/ii
291	D	XCV	1	25	16	23/A/B/1	18/A/ii
325	D	XCV	2	145	22	23/A/B/1	18/A/ii
253	D	XCV	1	45	20	23/A/B/1	18/A/ii
271	D	XCV	2	60	20	23/A/B/1	18/A/ii
273	D	XCV	2	65	12	23/A/B/1	18/A/ii
155	D	XCV	1	65	18	23/A/B/1	18/A/iii
158	D	XCV	16	1175	24	23/A/B/1	18/A/iii
196	D	XCV	1	65	18	23/A/B/1	18/A/iii
211	D	XCV	2	135	18	23/A/B/1	18/A/iii
226	D	XCV	1	30	20	23/A/B/1	18/A/iii
251	D	XCV	2	95	18	23/A/B/1	18/A/iii
252	D	XCV	2	80	20	23/A/B/1	18/A/iii

Anuradhapura: The Artefacts

255	D	XCV	2	85	14	23/A/B/1	18/A/iii
271	D	XCV	2	50	16	23/A/B/1	18/A/iii
271	D	XCV	1	20	16	23/A/B/1	18/A/iii
272	D	XCV	1	65	18	23/A/B/1	18/A/iii
272	D	XCV	5	185	16	23/A/B/1	18/A/iii
273	D	XCV	1	35	14	23/A/B/1	18/A/iii
283	D	XCV	1	45	18	23/A/B/1	18/A/iii
289	D	XCV	2	70	14	23/A/B/1	18/A/iii
292	D	XCV	2	65	12	23/A/B/1	18/A/iii
294	D	XCV	1	15	10	23/A/B/1	18/A/iii
295	D	XCV	2	80	16	23/A/B/1	18/A/iii
299	D	XCV	1	120	16	23/A/B/1	18/A/iii
324	D	XCV	2	75	16	23/A/B/1	18/A/iii
325	D	XCV	4	355	24	23/A/B/1	18/A/iii
360	D	XCV	1	15	16	23/A/B/1	18/A/iii
86	D	XCV	1	75	12	23/A/B/1	18/A/iii
158	D	XCV	4	150	24	23/A/B/1	18/A/iii
217	D	XCV	1	45	22	23/A/B/1	18/B/1
291	D	XCV	1	50	18	23/A/B/1	18/B/1
196	D	XCV	2	85	18	23/A/B/1	18/B/ii
205	D	XCV	1	75	16	23/A/B/1	18/B/ii
358	F	XCIII	1	60	20	23/A/B/1	18/A/iii
363	F	XCIII	2	130	18	23/A/B/1	18/A/iii
470	G4	LXXXI	1	40	22	23/A/B/1	18/A/iii

Variant 23/B/A/1

This jar is characterized by a thickened rolled-over rim with no neck. This variant is a relative latecomer to the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	110	14	23/B/A/1	18/A/i
4	A	CXIV	1	55	20	23/B/A/1	18/A/ii
1	A2	CXVIII	1	110	28	23/B/A/1	18/A/iii
19	B4	CX	1	40	14	23/B/A/1	18/A/i
5	B5	CXII	5	435	20	23/B/A/1	18/A/i
5	B5	CXII	1	70	22	23/B/A/1	18/A/ii
196	D	XCV	2	185	34	23/B/A/1	18/A/i
256	D	XCV	2	100	18	23/B/A/1	18/A/i
261	D	XCV	1	55	10	23/B/A/1	18/A/i
325	D	XCV	6	510	28	23/B/A/1	18/A/i
256	D	XCV	4	195	14	23/B/A/1	18/A/i
158	D	XCV	29	1490	24	23/B/A/1	18/A/iii
273	D	XCV	1	35	12	23/B/A/1	18/A/iii
325	D	XCV	7	34	24	23/B/A/1	18/A/iii
257	D	XCV	1	50	16	23/B/A/1	18/A/iii
257	D	XCV	1	50	16	23/B/A/1	18/A/iii

Variant 23/C/A/1

This jar is characterized by a rolled-over rim with no neck. The rim is flat and rolled-over dorsally. This variant is a relative latecomer to the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	3	145	32	23/C/A/1	18/A/i
51	B1	XCIX	1	55	38	23/C/A/1	18/A/i
263	C	XCV	1	45	28	23/C/A/1	18/A/i

Unglazed Ceramics

196	D	XCV	1	15	18	23/C/A/1	18/A/ii
272	D	XCV	1	30	16	23/C/A/1	18/A/ii
324	D	XCV	1	40	22	23/C/A/1	18/A/ii
256	D	XCV	1	35	18	23/C/A/1	18/A/ii
256	D	XCV	1	20	22	23/C/A/1	18/A/iii
261	D	XCV	1	50	22	23/C/A/1	18/A/iii
353	D	XCV	4	13	20	23/C/A/1	18/A/iii
365	F	XCII	1	25	22	23/C/A/1	18/A/ii
358	F	XCIII	1	40	18	23/C/A/1	18/A/ii
364	F	XCII	1	40	20	23/C/A/1	18/A/iii
364	F	XCII	1	160	28	23/C/A/1	18/B/ii

6.3.2.18 Form 24: Jar with spout or kemi

Form 24 is a jar with spout or *kemi*. It is a vessel used for drinking water but is also used in Buddhist ritual for washing hands and sprinkling water on flowers

(Gunasekera, Prematilleke and Silva 1971: 172) (Fig. 6.24).

Variants 24/A/A/1, 24/B/A/1, 24/B/A/2 and 24/B/B/1

Variant 24/A/A/1 is straight and relatively narrow with no thickening at the distal end and 24/B/A/1 is short, thick with a thickened distal end and a concave profile. 24/B/A/2 is differentiated from 24/B/A/1 by a small knob

at the base and 24/B/B/1 is an elongated version with an apparent thickened rim. Variant 24/B/B/1 appears to be the oldest, while the others are restricted to the upper levels of the sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
158	D	XCV	1	15	2	24/A/A/1	18/A/ii
151	D	XCV	1	15	2	24/A/A/1	18/A/iii
4	A	CXIV	1	80	6	24/B/A/1	18/A/ii
3	A1	CXV	1	40	4	24/B/A/1	18/A/iii
25	B1	XCVII	1	55	5	24/B/A/1	18/A/ii
24	B2	C	1	55	2	24/B/A/1	18/A/iii
5	B5	CXII	1	60	4	24/B/A/1	18/A/iii
263	C	XCV	1	40	5	24/B/A/1	18/A/iii
272	D	XCV	1	65	5	24/B/A/1	18/A/ii
284	D	XCV	1	55	5	24/B/A/1	18/A/iii
56	D	XCV	1	75	5	24/B/A/1	18/A/iii
4	A	CXIV	1	55	4	24/B/A/2	18/A/ii
158	D	XCV	5	250	4	24/B/A/2	18/A/iii
158	D	XCV	1	55	4	24/B/A/2	18/B/1
4	A	CXIV	1	30	2	24/B/B/1	18/A/iii
3	A1	CXV	1	85	4	24/B/B/1	18/A/iii
272	D	XCV	1	20	3	24/B/B/1	18/A/iii
365	F	XCII	1	5	2	24/B/B/1	18/A/ii

6.3.2.19 Form 26: Jar with spout/sprinkler or kemi

Form 26 is a jar with spout or *kemi*. It is a vessel used for drinking water, but it is also used in Buddhist ritual for washing hands and sprinkling water on flowers

(Gunasekera, Prematilleke and Silva 1971: 172) (Fig. 6.25).

Variant 26/A/A/1

26/A/A/1 is the base and middle section of a sprinkler spout with a thickened distal end. It is relatively young in the ASW2 sequence.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	50	4	26/A/A/1	18/A/ii
25	B1	XCVII	1	60	5	26/A/A/1	18/A/iii

51	B1	XCIX	1	40	3	26/A/A/1	18/A/ii
14	B3	CII	1	50	5	26/A/A/1	18/A/iii
26	B3	CIV	1	45	5	26/A/A/1	18/A/iii
9	B4	CVI	1	90	6	26/A/A/1	18/A/iii
19	B4	CX	1	45	4	26/A/A/1	18/A/iii
196	D	XCV	1	65	6	26/A/A/1	18/A/i

6.3.2.20 Form 28: Deep dish or tali

Form 28 is a flat dish with deep walls. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as tableware

(Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.25).

Variants 28/B/A/1 and 28/C/A/1

Variant 28/B/A/1 has a bifacially thickened rim with prominent external carination and 28/C/A/1 has a less

thickened rim and a slight carination. While the former first appears in period F, 28/C/A/1 is a late variant.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	6	340	28	28/B/A/1	18/A/i
4	A	CXIV	4	150	26	28/B/A/1	18/A/iii
4	A	CXIV	9	440	28	28/B/A/1	18/A/iii
4	A	CXIV	2	110	30	28/B/A/1	18/A/iii
4	A	CXIV	3	115	26	28/B/A/1	18/A/iii
4	A	CXIV	3	75	26	28/B/A/1	18/A/iii
4	A	CXIV	1	35	22	28/B/A/1	18/A/iii
4	A	CXIV	4	175	38	28/B/A/1	18/A/iii
4	A	CXIV	2	70	28	28/B/A/1	18/A/iii
4	A	CXIV	1	115	26	28/B/A/1	18/B/i
4	A	CXIV	2	235	38	28/B/A/1	18/B/ii
4	A	CXIV	1	90	28	28/B/A/1	18/B/iii
3	A1	CXV	5	200	22	28/B/A/1	18/A/iii
3	A1	CXV	4	160	32	28/B/A/1	18/A/iii
1	A2	CXVIII	4	135	28	28/B/A/1	18/A/iii
25	B1	XCVII	3	105	24	28/B/A/1	18/A/iii
25	B1	XCVII	1	40	26	28/B/A/1	18/A/iii
25	B1	XCVII	1	45	24	28/B/A/1	18/A/iii
25	B1	XCVII	1	60	30	28/B/A/1	18/A/iii
51	B1	XCIX	1	25	26	28/B/A/1	18/A/iii
27	B2	C	1	70	30	28/B/A/1	18/A/ii
24	B2	C	1	40	28	28/B/A/1	18/A/iii
16	B3	CIII	1	65	26	28/B/A/1	18/A/ii
26	B3	CIV	3	125	24	28/B/A/1	18/A/ii
16	B3	CIII	1	40	22	28/B/A/1	18/A/iii
26	B3	CIV	1	30	26	28/B/A/1	18/A/iii
26	B3	CIV	2	80	18	28/B/A/1	18/A/iii
26	B3	CIV	2	65	24	28/B/A/1	18/A/iii
9	B4	CVI	1	40	22	28/B/A/1	18/A/ii
19	B4	CX	1	85	26	28/B/A/1	18/A/i
263	C	XCV	2	90	24	28/B/A/1	18/A/ii
158	D	XCV	3	185	32	28/B/A/1	18/A/ii
256	D	XCV	1	25	24	28/B/A/1	18/A/ii
259	D	XCV	1	40	26	28/B/A/1	18/A/ii
272	D	XCV	7	315	24	28/B/A/1	18/A/ii
285	D	XCV	1	30	22	28/B/A/1	18/A/ii
299	D	XCV	1	45	22	28/B/A/1	18/A/ii
325	D	XCV	5	155	24	28/B/A/1	18/A/ii
360	D	XCV	1	30	20	28/B/A/1	18/A/ii

Unglazed Ceramics

56	D	XCV	2	100	28	28/B/A/1	18/A/ii
193	D	XCV	1	25	18	28/B/A/1	18/A/ii
256	D	XCV	3	115	26	28/B/A/1	18/A/ii
256	D	XCV	1	85	26	28/B/A/1	18/A/ii
158	D	XCV	3	185	28	28/B/A/1	18/A/iii
158	D	XCV	3	150	28	28/B/A/1	18/A/iii
168	D	XCV	1	35	22	28/B/A/1	18/A/iii
178	D	XCV	1	20	20	28/B/A/1	18/A/iii
254	D	XCV	1	25	20	28/B/A/1	18/A/iii
255	D	XCV	1	30	28	28/B/A/1	18/A/iii
292	D	XCV	1	30	24	28/B/A/1	18/A/iii
324	D	XCV	2	45	16	28/B/A/1	18/A/iii
325	D	XCV	1	85	32	28/B/A/1	18/A/iii
256	D	XCV	1	30	24	28/B/A/1	18/A/iii
273	D	XCV	1	45	24	28/B/A/1	18/A/iii
217	D	XCV	1	20	22	28/B/A/1	18/B/ii
367	F	XCII	2	80	24	28/B/A/1	18/A/ii
367	F	XCII	2	90	24	28/B/A/1	18/A/iii
355	F	XCIII	1	55	26	28/B/A/1	18/A/ii
358	F	XCIII	1	45	28	28/B/A/1	18/A/iii
1	A2	CXVIII	1	50	26	28/C/A/1	18/A/iii
9	B4	CVI	1	90	24	28/C/A/1	18/A/iii

6.3.2.21 Form 29: Deep dish or tali

Form 29 is a flat dish with deep walls. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as tableware

(Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.25).

Variant 29/A/A/1

29/A/A/1 has a thickened rim and carinated, straight upper body. This variant first appears in period J and has 26 sherds in periods I and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	165	32	29/A/A/1	18/A/ii
4	A	CXIV	1	30	26	29/A/A/1	18/A/ii
4	A	CXIV	1	95	40	29/A/A/1	18/A/iii
4	A	CXIV	1	55	30	29/A/A/1	18/A/iii
4	A	CXIV	1	65	30	29/A/A/1	18/A/iii
4	A	CXIV	1	20	26	29/A/A/1	18/A/iii
4	A	CXIV	1	50	32	29/A/A/1	18/A/iii
4	A	CXIV	1	55	20	29/A/A/1	18/A/iii
4	A	CXIV	1	55	20	29/A/A/1	18/A/iii
4	A	CXIV	1	25	16	29/A/A/1	18/A/iii
4	A	CXIV	1	80	28	29/A/A/1	18/A/iii
4	A	CXIV	1	35	28	29/A/A/1	18/A/iii
4	A	CXIV	1	105	36	29/A/A/1	18/B/ii
4	A	CXIV	1	140	40	29/A/A/1	18/B/ii
4	A	CXIV	1	55	32	29/A/A/1	18/B/ii
4	A	CXIV	2	190	38	29/A/A/1	18/B/ii
3	A1	CXV	1	80	22	29/A/A/1	18/A/iii
1	A2	CXVIII	2	105	28	29/A/A/1	18/A/iii
55	B1	XCVI	1	30	18	29/A/A/1	18/A/ii
25	B1	XCVII	1	20	22	29/A/A/1	18/A/iii
25	B1	XCVII	1	110	40	29/A/A/1	18/A/iii
25	B1	XCVII	1	75	32	29/A/A/1	18/B/ii
9	B4	CVI	1	20	24	29/A/A/1	18/A/iii

5	B5	CXII	1	40	26	29/A/A/1	18/B/I
56	D	XCV	1	30	24	29/A/A/1	18/A/II
366	F	XCII	1	70	22	29/A/A/1	18/A/II
367	F	XCII	1	45	24	29/A/A/1	18/A/II
264	F	XCIII	1	40	24	29/A/A/1	18/A/II
365	F	XCII	1	40	28	29/A/A/1	18/B/I
366	F	XCII	1	70	22	29/A/A/1	18/B/I
367	F	XCII	1	170	34	29/A/A/1	18/B/I
367	F	XCII	1	40	26	29/A/A/1	18/B/I
365	F	XCII	4	180	24	29/A/A/1	18/B/I
358	F	XCIII	2	70	28	29/A/A/1	18/B/I
358	F	XCIII	2	130	30	29/A/A/1	18/B/I
616	G2	LXX	1	35	26	29/A/A/1	18/A/I
634	G2	LXIX	1	40	28	29/A/A/1	18/A/II
634	G2	LXIX	1	30	18	29/A/A/1	18/A/II
616	G2	LXX	1	15	28	29/A/A/1	18/A/II
616	G2	LXX	5	200	34	29/A/A/1	18/A/II
632	G4	LXXXIII	3	120	30	29/A/A/1	18/A/II
424	G5	XCI	1	25	22	29/A/A/1	18/A/II
424	G5	XCI	1	10	20	29/A/A/1	18/A/II
437	G5	LXXXVII	1	35	28	29/A/A/1	18/A/II
437	G5	LXXXVII	1	25	18	29/A/A/1	18/A/II
416	G5	XCI	1	50	24	29/A/A/1	18/B/I
437	G5	LXXXVII	1	45	24	29/A/A/1	18/B/I
727	H	LXIV	1	15	18	29/A/A/1	18/A/II
1125	I1	XXIII	2	55	28	29/A/A/1	18/A/II
1125	I1	XXIII	1	15	18	29/A/A/1	18/A/II
880	I5	XXXIII	1	25	18	29/A/A/1	18/A/II
880	I5	XXXIII	1	15	16	29/A/A/1	18/A/II
855	I6	XXXVIII	1	45	22	29/A/A/1	18/A/II
788	I8	LIII	1	15	18	29/A/A/1	18/A/I
1407	J2	XIV	1	30	20	29/A/A/1	18/A/II
1473	J3	XVII	1	25	28	29/A/A/1	18/B/I

Variants 29/A/A/2 and 29/A/B/1

29/A/A/2 has a slightly thickened rim and carinated, straight upper body with external groove, while 29/A/B/1

has a rounded rim and no external grooving. Both first appear in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
367	F	XCII	1	45	24	29/A/A/2	18/A/II
416	G5	XCI	1	30	30	29/A/A/2	18/A/II
1125	I1	XXIII	1	20	26	29/A/A/2	18/A/II
1125	I1	XXIII	1	15	18	29/A/A/2	18/A/II
837	I7	XXXV	1	30	22	29/A/A/2	18/A/II
1172	J5	XXII	1	15	18	29/A/A/2	18/A/II
17	B5	CXIII	1	30	22	29/A/B/1	18/A/II
364	F	XCII	2	50	22	29/A/B/1	18/A/II
367	F	XCII	1	35	24	29/A/B/1	18/A/II
1476	J3	XVII	1	20	22	29/A/B/1	18/A/II

6.3.2.22 Form 30: Dish or tali

Form 30 is a flat dish with low walls. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as tableware

(Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.26).

Variant 30/A/A/1

Dish form without prominent rim and straight shoulders above carination. 30/A/A/1 is a small variant. With the exception of stray finds in periods B, F and G, this

variant is clearly restricted to periods I, J and even K, making it a valuable chronological marker.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	6	145	22	30/A/A/1	18/A/ii
366	F	XCII	1	15	20	30/A/A/1	16/B/iii
616	G2	LXX	1	15	22	30/A/A/1	18/A/iii
1125	I1	XXIII	13	205	18	30/A/A/1	16/B/ii
1125	I1	XXIII	1	5	12	30/A/A/1	16/B/ii
1125	I1	XXIII	3	40	26	30/A/A/1	16/B/ii
1163	I1	XXIV	1	5	12	30/A/A/1	16/B/ii
1125	I1	XXIII	5	155	18	30/A/A/1	16/B/ii
1125	I1	XXIII	7	105	18	30/A/A/1	16/B/iii
914	I4	XXXI	1	15	22	30/A/A/1	16/B/ii
962	I4	XXX	1	5	22	30/A/A/1	18/A/iii
908	I4	XXXI	1	10	20	30/A/A/1	18/A/iii
880	I5	XXXIII	6	65	22	30/A/A/1	16/B/ii
831	I6	XXXIX	4	20	22	30/A/A/1	16/B/ii
831	I6	XXXIX	4	50	22	30/A/A/1	16/B/ii
831	I6	XXXIX	10	100	20	30/A/A/1	16/B/ii
824+826	I7	LII	1	10	20	30/A/A/1	16/B/iii
1382	J3	XVII	8	125	22	30/A/A/1	16/B/ii
1290	J4	XIX	1	10	12	30/A/A/1	18/A/iii
1854	K1	V	2	20	20	30/A/A/1	16/B/ii

Variant 30/A/A/2

Dish form without prominent rim and straight shoulders above carination. 30/A/A/2 is a medium to large variant without decoration and numbers 1,663 individual rim sherds. There are a number of sub-variants within this category, which were not differentiated. This ceramic

represents a useful chronological indicator as only 20 sherds were found in period F and younger, and the vast majority were found in periods G, H, I and J. This variant was among the earliest recorded at trench ASW2, being found within phase K3.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	22	30/A/A/2	16/B/ii
4	A	CXIV	1	20	20	30/A/A/2	16/B/ii
4	A	CXIV	1	20	20	30/A/A/2	16/B/ii
4	A	CXIV	1	10	16	30/A/A/2	16/B/iii
4	A	CXIV	1	15	22	30/A/A/2	18/A/i
4	A	CXIV	1	10	14	30/A/A/2	18/A/iii
4	A	CXIV	1	20	20	30/A/A/2	18/A/iii
1	A2	CXVIII	1	15	16	30/A/A/2	18/A/iii
25	B1	XCVII	2	35	20	30/A/A/2	16/B/ii
25	B1	XCVII	1	15	20	30/A/A/2	16/B/iii
25	B1	XCVII	1	30	20	30/A/A/2	16/B/iii
25	B1	XCVII	2	25	18	30/A/A/2	16/B/iii
26	B3	CIV	1	20	22	30/A/A/2	16/B/iii
19	B4	CX	1	20	16	30/A/A/2	16/B/i
359	D	XCV	1	10	20	30/A/A/2	16/B/ii
217	D	XCV	1	10	16	30/A/A/2	18/A/ii
367	F	XCII	1	15	22	30/A/A/2	18/A/ii
194	F	XCIII	1	15	18	30/A/A/2	18/A/ii
634	G2	LXIX	1	25	20	30/A/A/2	16/B/i
634	G2	LXIX	1	10	18	30/A/A/2	16/B/ii
634	G2	LXIX	1	10	18	30/A/A/2	16/B/ii

Anuradhapura: The Artefacts

616	G2	LXX	2	20	20	30/A/A/2	16/B/i
616	G2	LXX	1	5	18	30/A/A/2	16/B/i
616	G2	LXX	7	110	20	30/A/A/2	16/B/i
634	G2	LXIX	2	20	20	30/A/A/2	18/A/i
616	G2	LXX	1	10	22	30/A/A/2	18/A/i
616	G2	LXX	3	30	22	30/A/A/2	18/A/i
616	G2	LXX	1	10	22	30/A/A/2	18/A/i
616	G2	LXX	1	40	28	30/A/A/2	18/A/iii
491	G3	LXXVI	1	20	22	30/A/A/2	16/B/i
630	G3	LXXVI	1	10	18	30/A/A/2	16/B/i
630	G3	LXXVI	3	159	18	30/A/A/2	16/B/i
630	G3	LXXVI	1	20	22	30/A/A/2	18/A/iii
630	G3	LXXVI	2	25	22	30/A/A/2	18/A/iii
632	G4	LXXXIII	1	15	24	30/A/A/2	16/B/i
424	G5	XCI	3	30	22	30/A/A/2	16/B/i
416	G5	XCI	1	10	20	30/A/A/2	16/B/i
416	G5	XCI	1	50	22	30/A/A/2	16/B/i
416	G5	XCI	1	20	22	30/A/A/2	16/B/i
416	G5	XCI	4	65	22	30/A/A/2	16/B/i
437	G5	LXXXVII	1	10	22	30/A/A/2	16/B/i
424	G5	XCI	1	15	22	30/A/A/2	16/B/iii
424	G5	XCI	2	40	20	30/A/A/2	18/A/i
424	G5	XCI	1	20	26	30/A/A/2	18/A/i
424	G5	XCI	1	15	28	30/A/A/2	18/A/iii
727	H	LXIV	1	20	24	30/A/A/2	16/B/i
730	H1	LXIII	1	15	22	30/A/A/2	18/A/i
881	H1	LXIII	1	50	28	30/A/A/2	18/A/iii
1125	I1	XXIII	34	835	24	30/A/A/2	16/B/i
1125	I1	XXIII	1	5	18	30/A/A/2	16/B/i
1125	I1	XXIII	1	10	18	30/A/A/2	16/B/i
1125	I1	XXIII	2	35	18	30/A/A/2	16/B/i
1125	I1	XXIII	4	45	20	30/A/A/2	16/B/i
1125	I1	XXIII	46	590	18,24	30/A/A/2	16/B/i
1125	I1	XXIII	30	535	18,24	30/A/A/2	16/B/i
1125	I1	XXIII	7	75	20	30/A/A/2	16/B/i
1125	I1	XXIII	22	235	18,20	30/A/A/2	16/B/i
1125	I1	XXIII	8	200	18,20	30/A/A/2	16/B/i
1125	I1	XXIII	22	205	18,22	30/A/A/2	16/B/i
1125	I1	XXIII	8	130	20	30/A/A/2	16/B/i
1124	I1	XXV	18	390	22	30/A/A/2	16/B/i
1124	I1	XXV	1	10	16	30/A/A/2	16/B/i
1170	I1	XXIV	1	15	18	30/A/A/2	16/B/i
1166	I1	XXIV	10	210	24	30/A/A/2	16/B/i
1153	I1	XXIV	5	70	20	30/A/A/2	16/B/i
1149	I1	XXIV	2	20	14	30/A/A/2	16/B/i
1127	I1	XXIV	2	35	20	30/A/A/2	16/B/i
1125	I1	XXIII	43	690	24	30/A/A/2	16/B/i
1125	I1	XXIII	1	25	22	30/A/A/2	16/B/ii
1125	I1	XXIII	11	135	18,20	30/A/A/2	16/B/ii
1125	I1	XXIII	7	100	20-22	30/A/A/2	16/B/ii
1125	I1	XXIII	5	55	18,20	30/A/A/2	16/B/iii
1164	I1	XXIV	1	30	22	30/A/A/2	16/B/iii
1149	I1	XXIV	3	50	24	30/A/A/2	16/B/iii
1125	I1	XXIII	1	50	22	30/A/A/2	16/B/v
1125	I1	XXIII	2	75	28	30/A/A/2	16/B/v
1125	I1	XXIII	3	60	22	30/A/A/2	18/A/ii
1125	I1	XXIII	1	15	22	30/A/A/2	18/A/ii

Unglazed Ceramics

1125	I1	XXIII	9	315	20	30/A/A/2	18/A/ii
1125	I1	XXIII	3	55	18	30/A/A/2	18/A/ii
1125	I1	XXIII	7	115	20	30/A/A/2	18/A/ii
1170	I1	XXIV	2	15	18	30/A/A/2	18/A/ii
1127	I1	XXIV	2	30	20	30/A/A/2	18/A/ii
1125	I1	XXIII	3	35	20	30/A/A/2	18/A/iii
1125	I1	XXIII	6	105	24	30/A/A/2	18/A/iii
1125	I1	XXIII	1	30	20	30/A/A/2	18/A/iii
1125	I1	XXIII	3	75	20	30/A/A/2	18/A/iii
1125	I1	XXIII	12	150	20	30/A/A/2	18/A/iii
1125	I1	XXIII	15	355	22	30/A/A/2	18/A/iii
1125	I1	XXIII	4	60	20	30/A/A/2	18/A/iii
1125	I1	XXIII	2	25	20	30/A/A/2	18/A/iii
1125	I1	XXIII	1	15	20	30/A/A/2	18/A/iii
1125	I1	XXIII	1	15	20	30/A/A/2	18/A/iii
1125	I1	XXIII	2	20	18	30/A/A/2	18/A/iii
1125	I1	XXIII	4	40	18	30/A/A/2	18/A/iii
1125	I1	XXIII	3	30	18	30/A/A/2	18/A/iii
1125	I1	XXIII	6	70	20	30/A/A/2	18/A/iii
1125	I1	XXIII	1	20	20	30/A/A/2	18/A/iii
1124	I1	XXV	6	50	22	30/A/A/2	18/A/iii
1124	I1	XXV	1	15	20	30/A/A/2	18/A/iii
1153	I1	XXIV	1	20	16	30/A/A/2	18/A/iii
1149	I1	XXIV	1	10	18	30/A/A/2	18/A/iii
1127	I1	XXIV	1	15	20	30/A/A/2	18/A/iii
1125	I1	XXIII	5	60	20	30/A/A/2	18/A/iii
1101	I2	XXVI	26	450	18,22	30/A/A/2	16/B/ii
1101	I2	XXVI	1	30	28	30/A/A/2	16/B/ii
1101	I2	XXVI	3	30	20	30/A/A/2	16/B/ii
1101	I2	XXVI	4	50	22	30/A/A/2	16/B/ii
1101	I2	XXVI	34	385	18,24	30/A/A/2	16/B/ii
1101	I2	XXVI	18	320	20,22	30/A/A/2	16/B/ii
1101	I2	XXVI	1	25	28	30/A/A/2	16/B/ii
1101	I2	XXVI	24	445	18,22	30/A/A/2	16/B/ii
1101	I2	XXVI	50	595	20,24	30/A/A/2	16/B/ii
1116	I2	XXVII	2	70	18	30/A/A/2	16/B/ii
1116	I2	XXVII	4	60	20	30/A/A/2	16/B/ii
1113	I2	XXVII	1	5	18	30/A/A/2	16/B/ii
1113	I2	XXVII	2	35	20	30/A/A/2	16/B/ii
1101	I2	XXVI	26	310	24	30/A/A/2	16/B/ii
1101	I2	XXVI	6	60	20	30/A/A/2	16/B/iii
1101	I2	XXVI	11	100	22	30/A/A/2	16/B/iii
1101	I2	XXVI	5	125	20,22	30/A/A/2	16/B/iii
1111	I2	XXVII	1	25	12	30/A/A/2	16/Bii
1101	I2	XXVI	2	70	22	30/A/A/2	18/A/ii
1101	I2	XXVI	3	45	20	30/A/A/2	18/A/ii
1101	I2	XXVI	6	65	20	30/A/A/2	18/A/ii
1101	I2	XXVI	5	75	20	30/A/A/2	18/A/ii
1101	I2	XXVI	3	135	24	30/A/A/2	18/A/iii
1101	I2	XXVI	3	40	20	30/A/A/2	18/A/iii
1101	I2	XXVI	5	50	20	30/A/A/2	18/A/iii
1116	I2	XXVII	1	15	18	30/A/A/2	18/A/iii
1116	I2	XXVII	1	25	18	30/A/A/2	18/A/iii
1113	I2	XXVII	1	10	20	30/A/A/2	18/A/iii
1101	I2	XXVI	14	145	18,22	30/A/A/2	18/A/iii
977	I3	XXVIII	3	45	20	30/A/A/2	16/B/i
977	I3	XXVIII	7	95	20	30/A/A/2	16/B/i

Anuradhapura: The Artefacts

977	I3	XXVIII	16	185	20	30/A/A/2	16/B/i
977	I3	XXVIII	9	125	22	30/A/A/2	16/B/i
977	I3	XXVIII	5	75	22	30/A/A/2	16/B/i
977	I3	XXVIII	2	40	22	30/A/A/2	16/B/i
977	I3	XXVIII	9	110	20	30/A/A/2	16/B/i
977	I3	XXVIII	6	110	22	30/A/A/2	16/B/i
1213	I3	XXIX	15	170	18	30/A/A/2	16/B/i
1119	I3	XXIX	1	15	26	30/A/A/2	16/B/i
1119	I3	XXIX	23	230	24,26	30/A/A/2	16/B/i
1119	I3	XXIX	17	305	22	30/A/A/2	16/B/i
1213	I3	XXIX	1	25	26	30/A/A/2	16/B/i
977	I3	XXVIII	2	20	20	30/A/A/2	16/B/iii
977	I3	XXVIII	6	70	20	30/A/A/2	16/B/iii
977	I3	XXVIII	3	25	22	30/A/A/2	16/B/iii
1097	I3	XXXIX	1	15	22	30/A/A/2	16/B/iii
977	I3	XXVIII	2	45	28	30/A/A/2	16/B/v
977	I3	XXVIII	3	25	22	30/A/A/2	18/A/i
977	I3	XXVIII	2	30	22	30/A/A/2	18/A/i
977	I3	XXVIII	1	30	22	30/A/A/2	18/A/i
977	I3	XXVIII	1	10	22	30/A/A/2	18/A/i
977	I3	XXVIII	2	20	22	30/A/A/2	18/A/i
977	I3	XXVIII	2	30	20	30/A/A/2	18/A/ii
977	I3	XXVIII	3	20	20	30/A/A/2	18/A/ii
977	I3	XXVIII	1	20	22	30/A/A/2	18/A/ii
977	I3	XXVIII	1	10	22	30/A/A/2	18/A/ii
977	I3	XXVIII	2	35	22	30/A/A/2	18/A/ii
1214	I3	XXIX	1	25	20	30/A/A/2	18/A/ii
1213	I3	XXIX	2	45	22	30/A/A/2	18/A/ii
1119	I3	XXIX	4	50	26	30/A/A/2	18/A/ii
1119	I3	XXIX	2	30	22	30/A/A/2	18/A/ii
1214	I3	XXIX	3	25	20	30/A/A/2	18/A/ii
961	I4	XXX	1	15	22	30/A/A/2	16/B/i
961	I4	XXX	3	30	24	30/A/A/2	16/B/i
961	I4	XXX	13	130	22	30/A/A/2	16/B/i
961	I4	XXX	1	5	18	30/A/A/2	16/B/i
961	I4	XXX	1	30	24	30/A/A/2	16/B/i
962	I4	XXX	1	25	20	30/A/A/2	16/B/i
962	I4	XXX	4	40	22	30/A/A/2	16/B/i
962	I4	XXX	6	60	22	30/A/A/2	16/B/i
962	I4	XXX	6	60	22	30/A/A/2	16/B/i
962	I4	XXX	2	20	22	30/A/A/2	16/B/i
961	I4	XXX	4	45	22	30/A/A/2	16/B/i
961	I4	XXX	10	75	22	30/A/A/2	16/B/i
961	I4	XXX	10	95	22	30/A/A/2	16/B/i
961	I4	XXX	9	75	18	30/A/A/2	16/B/i
961	I4	XXX	1	30	18	30/A/A/2	16/B/i
961	I4	XXX	9	75	22	30/A/A/2	16/B/i
971	I4	XXXI	1	5	22	30/A/A/2	16/B/i
970	I4	XXXI	1	10	20	30/A/A/2	16/B/i
959	I4	XXXI	2	209	22	30/A/A/2	16/B/i
1098	I4	XXXI	2	20	22	30/A/A/2	16/B/i
885	I4	XXXII	1	10	20	30/A/A/2	16/B/i
964	I4	XXXII	1	10	20	30/A/A/2	16/B/i
914	I4	XXXII	1	10	22	30/A/A/2	16/B/i
962	I4	XXX	1	10	22	30/A/A/2	16/B/iii
902	I4	XXXI	1	10	20	30/A/A/2	16/B/iii
1098	I4	XXXI	2	25	22	30/A/A/2	16/B/ii

Unglazed Ceramics

961	I4	XXX	1	15	22	30/A/A/2	18/A/ii
961	I4	XXX	1	15	22	30/A/A/2	18/A/iii
961	I4	XXX	3	25	18	30/A/A/2	18/A/iii
997	I4	XXXI	1	10	22	30/A/A/2	18/A/iii
970	I4	XXXI	1	15	22	30/A/A/2	18/A/iii
963	I4	XXXI	1	15	22	30/A/A/2	18/A/iii
1098	I4	XXXI	3	50	24	30/A/A/2	18/A/iii
1098	I4	XXXI	8	145	24	30/A/A/2	18/A/iii
1098	I4	XXXI	3	30	22	30/A/A/2	18/A/iii
1098	I4	XXXI	1	15	22	30/A/A/2	18/A/iii
894	I4	XXXII	1	20	22	30/A/A/2	18/A/iii
880	I5	XXXIII	1	20	20	30/A/A/2	16/B/ii
880	I5	XXXIII	7	95	22	30/A/A/2	16/B/ii
880	I5	XXXIII	2	20	22	30/A/A/2	16/B/ii
880	I5	XXXIII	2	20	22	30/A/A/2	16/B/ii
880	I5	XXXIII	6	60	22	30/A/A/2	16/B/ii
880	I5	XXXIII	1	20	22	30/A/A/2	16/B/ii
880	I5	XXXIII	1	20	22	30/A/A/2	16/B/ii
880	I5	XXXIII	5	125	24	30/A/A/2	16/B/ii
880	I5	XXXIII	1	20	18	30/A/A/2	16/B/iii
880	I5	XXXIII	1	15	22	30/A/A/2	18/A/iii
880	I5	XXXIII	1	25	20	30/A/A/2	18/A/iii
1394	I6	XXXVI	5	170	16	30/A/A/2	16/B/ii
1383	I6	XXXVI	5	60	22	30/A/A/2	16/B/ii
1206	I6	XXXVI	1	15	18	30/A/A/2	16/B/ii
1106	I6	XXXVI	7	85	20	30/A/A/2	16/B/ii
834	I6	XXXVII	8	100	22	30/A/A/2	16/B/ii
834	I6	XXXVII	1	35	24	30/A/A/2	16/B/ii
834	I6	XXXVII	2	150	22	30/A/A/2	16/B/ii
834	I6	XXXVII	6	50	18	30/A/A/2	16/B/ii
856	I6	XXXVIII	2	15	22	30/A/A/2	16/B/ii
852	I6	XXXVIII	1	5	10	30/A/A/2	16/B/ii
831	I6	XXXIX	2	15	22	30/A/A/2	16/B/ii
850	I6	XL	9	80	22	30/A/A/2	16/B/ii
1206	I6	XXXVI	3	55	22	30/A/A/2	16/B/ii
1399	I6	XXXVI	2	60	20	30/A/A/2	16/B/iii
1206	I6	XXXVI	3	40	18	30/A/A/2	16/B/iii
850	I6	XL	1	15	12	30/A/A/2	16/B/iii
1399	I6	XXXVI	4	100	20	30/A/A/2	16/B/iii
1206	I6	XXXVI	1	20	24	30/A/A/2	18/A/ii
1206	I6	XXXVI	2	40	16	30/A/A/2	18/A/ii
1394	I6	XXXVI	1	60	18	30/A/A/2	18/A/iii
1206	I6	XXXVI	6	60	24	30/A/A/2	18/A/iii
834	I6	XXXVII	4	165	26	30/A/A/2	18/A/iii
856	I6	XXXVIII	2	35	22	30/A/A/2	18/A/iii
856	I6	XXXVIII	1	25	20	30/A/A/2	18/A/iii
856	I6	XXXVIII	2	30	22	30/A/A/2	18/A/iii
831	I6	XXXIX	1	10	20	30/A/A/2	18/A/iii
831	I6	XXXIX	1	15	16	30/A/A/2	18/A/iii
850	I6	XL	1	15	20	30/A/A/2	18/A/iii
1206	I6	XXXVI	2	20	24	30/A/A/2	18/A/iii
837	I7	XXXV	19	170	20	30/A/A/2	16/B/ii
837	I7	XXXV	3	35	18	30/A/A/2	16/B/ii
837	I7	XXXV	1	10	22	30/A/A/2	16/B/ii
837	I7	XXXV	7	65	22	30/A/A/2	16/B/ii
837	I7	XXXV	3	25	22	30/A/A/2	16/B/ii
752	I7	XLI	1	10	22	30/A/A/2	16/B/ii

Anuradhapura: The Artefacts

752	I7	XLI	1	5	24	30/A/A/2	16/B/ii
843	I7	XLII	1	10	22	30/A/A/2	16/B/ii
804	I7	XLII	1	10	22	30/A/A/2	16/B/ii
772	I7	XLII	1	15	20	30/A/A/2	16/B/ii
812	I7	XLIV	3	15	20	30/A/A/2	16/B/ii
798	I7	XLVI	1	15	22	30/A/A/2	16/B/ii
791	I7	XLVII	4	40	20	30/A/A/2	16/B/ii
791	I7	XLVII	25	255	18	30/A/A/2	16/B/ii
790	I7	XLVII	1	10	22	30/A/A/2	16/B/ii
790	I7	XLVII	2	40	20	30/A/A/2	16/B/ii
833	I7	XLII	1	20	22	30/A/A/2	16/B/iii
837	I7	XXXV	1	15	22	30/A/A/2	18/A/ii
772	I7	XLII	1	10	28	30/A/A/2	18/A/ii
811	I7	XLIV	1	10	22	30/A/A/2	18/A/ii
798	I7	XLVI	2	25	24	30/A/A/2	18/A/ii
791	I7	XLVII	2	20	20	30/A/A/2	18/A/ii
790	I7	XLVII	1	10	22	30/A/A/2	18/A/ii
837	I7	XXXV	1	15	20	30/A/A/2	18/A/iii
837	I7	XXXV	1	15	20	30/A/A/2	18/A/iii
788	I8	LIII	6	60	22	30/A/A/2	16/B/ii
788	I8	LIII	3	30	22	30/A/A/2	16/B/ii
729	I8	LIII	2	15	20	30/A/A/2	16/B/ii
729	I8	LIII	5	60	20	30/A/A/2	16/B/ii
729	I8	LIII	1	15	20	30/A/A/2	16/B/ii
729	I8	LIII	5	65	20	30/A/A/2	16/B/ii
767	I8	LX	5	50	22	30/A/A/2	16/B/ii
767	I8	LX	4	40	18	30/A/A/2	16/B/ii
767	I8	LX	9	85	24	30/A/A/2	16/B/ii
767	I8	LX	5	95	22	30/A/A/2	16/B/ii
767	I8	LX	2	25	24	30/A/A/2	16/B/ii
767	I8	LX	5	75	20	30/A/A/2	18/A/ii
767	I8	LX	1	10	22	30/A/A/2	18/A/ii
788	I8	LIII	2	25	24	30/A/A/2	18/A/iii
729	I8	LIII	1	40	70	30/A/A/2	18/A/iii
768	I8	LX	2	35	20	30/A/A/2	18/A/iii
1407	J2	XIV	1	20	20	30/A/A/2	16/B/ii
1407	J2	XIV	2	45	20	30/A/A/2	16/B/ii
1485	J2	XV	1	15	20	30/A/A/2	16/B/ii
1463	J2	XV	2	15	18	30/A/A/2	16/B/ii
1406	J2	XV	1	20	22	30/A/A/2	16/B/ii
1407	J2	XIV	1	15	20	30/A/A/2	16/B/iii
1407	J2	XIV	1	10	20	30/A/A/2	16/B/iii
1407	J2	XIV	6	70	16	30/A/A/2	16/B/iii
1491	J2	XV	1	15	20	30/A/A/2	16/B/iii
1406	J2	XV	2	20	22	30/A/A/2	16/B/iii
1407	J2	XIV	1	20	22	30/A/A/2	18/A/iii
1496	J3	XII	2	100	22	30/A/A/2	16/B/ii
1476	J3	XVII	6	70	16	30/A/A/2	16/B/ii
1476	J3	XVII	1	35	14	30/A/A/2	16/B/ii
1476	J3	XVII	2	40	22	30/A/A/2	16/B/ii
1476	J3	XVII	4	175	22	30/A/A/2	16/B/ii
1476	J3	XVII	7	155	16,18	30/A/A/2	16/B/ii
1476	J3	XVII	2	15	20	30/A/A/2	16/B/ii
1476	J3	XVII	3	50	16,18	30/A/A/2	16/B/ii
1475	J3	XVII	5	130	20	30/A/A/2	16/B/ii
1473	J3	XVII	3	30	20	30/A/A/2	16/B/ii
1473	J3	XVII	1	70	20	30/A/A/2	16/B/ii

Unglazed Ceramics

1404	J3	XVII	4	75	18	30/A/A/2	16/B/ii
1404	J3	XVII	1	20	18	30/A/A/2	16/B/ii
1403	J3	XVII	3	50	22	30/A/A/2	16/B/ii
1372	J3	XVII	3	45	16	30/A/A/2	16/B/ii
1362	J3	XVII	5	45	20	30/A/A/2	16/B/ii
1362	J3	XVII	2	40	20	30/A/A/2	16/B/i
1496	J3	XII	2	50	24	30/A/A/2	16/B/iii
1391	J3	XVII	1	20	22	30/A/A/2	16/B/iii
1476	J3	XVII	3	55	20	30/A/A/2	16/B/iii
1476	J3	XVII	3	45	17	30/A/A/2	16/B/iii
1474	J3	XVII	1	10	24	30/A/A/2	16/B/iii
1474	J3	XVII	6	80	18	30/A/A/2	16/B/iii
1372	J3	XVII	2	359	22	30/A/A/2	16/B/iii
1483	J3	XVII	2	40	20	30/A/A/2	18/A/i
1474	J3	XVII	1	10	16	30/A/A/2	18/A/i
1403	J3	XVII	1	10	22	30/A/A/2	18/A/i
1496	J3	XII	1	55	22	30/A/A/2	18/A/iii
1340	J3	XVII	1	10	20	30/A/A/2	16/B/i
1293	J3	XVI	1	15	22	30/A/A/2	16/B/ii
1293	J3	XVI	1	35	24	30/A/A/2	16/B/ii
1293	J3	XVI	2	95	26	30/A/A/2	16/B/ii
1293	J3	XVI	7	115	22,30	30/A/A/2	16/B/iii
1293	J3	XVI	2	95	26	30/A/A/2	16/B/iii
1293	J3	XVI	5	85	22	30/A/A/2	16/B/iii
1293	J3	XVI	1	30	10	30/A/A/2	16/B/iii
1293	J3	XVI	1	30	10	30/A/A/2	16/B/iii
1293	J3	XVI	5	85	22	30/A/A/2	16/B/iii
1175	J4	XVIII	7	100	18	30/A/A/2	16/B/ii
1175	J4	XVIII	1	10	24	30/A/A/2	16/B/ii
1175	J4	XVIII	6	85	24	30/A/A/2	16/B/ii
1175	J4	XVIII	5	120	24	30/A/A/2	16/B/ii
1175	J4	XVIII	3	60	24	30/A/A/2	16/B/ii
1175	J4	XVIII	6	85	22	30/A/A/2	16/B/ii
1216	J4	XIX	2	75	12	30/A/A/2	16/B/ii
1216	J4	XIX	1	50	14	30/A/A/2	16/B/ii
1216	J4	XIX	18	335	22	30/A/A/2	16/B/ii
1215	J4	XIX	3	85	20	30/A/A/2	16/B/ii
1295	J4	XIX	1	10	18	30/A/A/2	16/B/ii
1290	J4	XIX	16	165	20	30/A/A/2	16/B/ii
1290	J4	XIX	2	240	16	30/A/A/2	16/B/ii
1216	J4	XIX	2	30	20	30/A/A/2	16/B/ii
1228	J4	XIX	2	15	14	30/A/A/2	16/B/ii
1175	J4	XVIII	8	100	24	30/A/A/2	16/B/iii
1236	J4	XIX	1	25	16	30/A/A/2	16/B/iii
1290	J4	XIX	6	60	20	30/A/A/2	16/Bii
1236	J4	XIX	2	70	16	30/A/A/2	16/Biii
1280	J4	XIX	1	25	16	30/A/A/2	18/A/i
1216	J4	XIX	2	30	14	30/A/A/2	18/A/ii
1175	J4	XVIII	1	10	24	30/A/A/2	18/A/iii
1175	J4	XVIII	2	35	24	30/A/A/2	18/A/iii
1216	J4	XIX	1	20	20	30/A/A/2	18/A/iii
1216	J4	XIX	3	20	20	30/A/A/2	18/A/iii
1290	J4	XIX	2	20	22	30/A/A/2	18/A/iii
1290	J4	XIX	1	15	22	30/A/A/2	18/A/iii
1290	J4	XIX	1	15	18	30/A/A/2	18/A/iii
1216	J4	XIX	1	5	14	30/A/A/2	18/A/iii
1236	J4	XIX	1	35	16	30/A/A/2	18/A/iii

Anuradhapura: The Artefacts

1174	J5	XX	1	10	16	30/A/A/2	16/B/i
1174	J5	XX	1	25	16	30/A/A/2	16/B/i
1208	J5	XXI	6	165	18	30/A/A/2	16/B/i
1208	J5	XXI	5	115	18	30/A/A/2	16/B/i
1191	J5	XXI	6	50	18	30/A/A/2	16/B/i
1208	J5	XXI	5	50	18	30/A/A/2	16/B/i
1195	J5	XXI	4	65	20	30/A/A/2	16/B/i
1172	J5	XXII	18	280	24	30/A/A/2	16/B/i
1172	J5	XXII	38	400	24	30/A/A/2	16/B/i
1172	J5	XXII	13	135	24	30/A/A/2	16/B/i
1172	J5	XXII	1	25	22	30/A/A/2	16/B/i
1172	J5	XXII	11	160	22	30/A/A/2	16/B/i
1172	J5	XXII	2	40	22	30/A/A/2	16/B/ii
1172	J5	XXII	1	50	26	30/A/A/2	16/B/iv
1208	J5	XXI	1	10	18	30/A/A/2	18/A/i
1195	J5	XXI	1	10	18	30/A/A/2	18/A/i
1191	J5	XXI	2	125	20	30/A/A/2	18/A/i
1172	J5	XXII	3	35	24	30/A/A/2	18/A/i
1172	J5	XXII	4	35	24	30/A/A/2	18/A/i
1172	J5	XXII	1	30	24	30/A/A/2	18/A/i
1172	J5	XXII	3	30	24	30/A/A/2	18/A/i
1172	J5	XXII	3	25	18	30/A/A/2	18/A/i
1191	J5	XXI	1	15	24	30/A/A/2	18/A/ii
1172	J5	XXII	2	25	18	30/A/A/2	18/A/ii
1208	J5	XXI	1	20	18	30/A/A/2	16/B/iv
1172	J5	XXII	1	20	28	30/A/A/2	18/A/iii
1172	J5	XXII	3	35	20	30/A/A/2	18/A/iii
1616	K3	VIII	2	15	20	30/A/A/2	16/B/i
1615	K3	X	4	85	18-24	30/A/A/2	16/B/ii
1615	K3	X	9	160	16-22	30/A/A/2	16/B/ii
1615	K3	X	10	510	16-22	30/A/A/2	16/B/iii
1615	K3	X	1	45	22	30/A/A/2	16/B/iii

Variants 30/A/A/3 and 30/A/A/5

Dish form without prominent rim and straight shoulders above carination. Variant 30/A/A/3 has external grooves above the carination and 30/A/A/5 has a slightly beaked

interior lip edge. As with 30/A/A/2, this ceramic represents a useful chronological indicator as it was recovered only from periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	10	18	30/A/A/3	16/B/i
1125	I1	XXIII	1	10	20	30/A/A/3	16/B/i
1125	I1	XXIII	1	10	18	30/A/A/3	16/B/i
1125	I1	XXIII	1	10	18	30/A/A/3	16/B/i
1125	I1	XXIII	1	15	18	30/A/A/3	16/B/i
977	I3	XXVIII	1	20	22	30/A/A/3	16/B/i
977	I3	XXVIII	3	40	22	30/A/A/3	18/A/ii
1383	I6	XXXVI	3	110	20	30/A/A/3	18/A/i
1293	J3	XVI	1	35	24	30/A/A/3	16/B/i
1175	J4	XVIII	1	10	18	30/A/A/3	16/B/ii
1125	I1	XXIII	2	80	32	30/A/A/5	16/B/i
1125	I1	XXIII	2	50	32	30/A/A/5	16/B/i
1101	I2	XXVI	1	20	20	30/A/A/5	16/B/i

Variant 30/A/B/1

Dish form without prominent rim and straight shoulders above carination. Variant 30/A/B/1 has a concave upper body. This ceramic represents a very tight chronological

marker as, with the exception of three stray sherds in A, G and J, it was restricted to period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	15	14	30/A/B/1	16/B/iii
616	G2	LXX	1	5	12	30/A/B/1	16/B/ii
977	I3	XXVIII	4	45	22	30/A/B/1	16/B/ii
977	I3	XXVIII	1	10	22	30/A/B/1	16/B/iii
961	I4	XXX	3	25	22	30/A/B/1	16/B/ii
961	I4	XXX	1	10	20	30/A/B/1	16/B/ii
962	I4	XXX	3	25	22	30/A/B/1	16/B/ii
961	I4	XXX	4	110	22	30/A/B/1	16/B/ii
961	I4	XXX	1	5	12	30/A/B/1	16/B/ii
914	I4	XXXI	1	10	22	30/A/B/1	16/B/ii
972	I4	XXXI	5	45	20	30/A/B/1	16/B/ii
963	I4	XXXI	3	20	20	30/A/B/1	16/B/ii
959	I4	XXXI	1	10	20	30/A/B/1	16/B/ii
964	I4	XXXII	2	20	20	30/A/B/1	16/B/ii
964	I4	XXXII	2	50	24	30/A/B/1	16/B/ii
914	I4	XXXII	2	25	14	30/A/B/1	16/B/ii
894	I4	XXXII	1	10	22	30/A/B/1	16/B/ii
961	I4	XXX	1	5	22	30/A/B/1	16/B/iii
962	I4	XXX	2	15	22	30/A/B/1	16/B/iii
961	I4	XXX	1	15	22	30/A/B/1	18/A/iii
962	I4	XXX	3	40	24	30/A/B/1	18/A/iii
961	I4	XXX	3	35	20	30/A/B/1	18/A/iii
961	I4	XXX	1	10	22	30/A/B/1	18/A/iii
880	I5	XXXIII	4	40	20	30/A/B/1	16/B/ii
880	I5	XXXIII	3	20	14	30/A/B/1	16/B/ii
880	I5	XXXIII	1	10	22	30/A/B/1	18/A/iii
880	I5	XXXIII	1	5	22	30/A/B/1	18/A/iii
880	I5	XXXIII	1	10	20	30/A/B/1	18/A/iii
887	I6	XXXVI	2	20	18	30/A/B/1	16/B/ii
860	I6	XXXVI	1	15	20	30/A/B/1	16/B/ii
1106	I6	XXXVI	1	10	12	30/A/B/1	16/B/ii
834	I6	XXXVII	4	50	20	30/A/B/1	16/B/ii
850	I6	XL	1	15	18	30/A/B/1	16/B/ii
850	I6	XL	2	20	18	30/A/B/1	16/B/ii
850	I6	XL	2	60	22	30/A/B/1	16/B/ii
850	I6	XL	1	10	12	30/A/B/1	16/B/iii
834	I6	XXXVII	1	10	16	30/A/B/1	17/B/ii
831	I6	XXXIX	1	20	22	30/A/B/1	18/A/ii
850	I6	XL	1	20	18	30/A/B/1	18/A/ii
831	I6	XXXIX	1	15	22	30/A/B/1	18/A/iii
850	I6	XL	2	15	18	30/A/B/1	18/A/iii
837	I7	XXXV	1	10	20	30/A/B/1	16/B/ii
832	I7	XLII	2	30	18	30/A/B/1	16/B/ii
812	I7	XLIV	4	65	22	30/A/B/1	16/B/ii
791	I7	XLVII	2	15	20	30/A/B/1	16/B/ii
791	I7	XLVII	2	25	20	30/A/B/1	16/B/ii
790	I7	XLVII	3	20	20	30/A/B/1	16/B/ii
839	I7	XLIV	1	15	20	30/A/B/1	16/B/iii
788	I8	LIII	1	15	16	30/A/B/1	16/B/ii
767	I8	LX	3	55	20	30/A/B/1	16/B/ii

767	I8	LX	4	45	18	30/A/B/1	16/B/ii
1403	J3	XVII	3	35	22	30/A/B/1	16/B/ii

Variant 30/A/B/2

Dish/plate form without prominent rim and straight shoulders above carination. Variant 30/A/B/2 has a flaring upper body. Again, this ceramic represents a very

tight chronological marker as it was restricted to phases G4 and H1.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
632	G4	LXXXIII	1	15	22	30/A/B/2	16/B/ii
730	H1	LXIII	1	15	22	30/A/B/2	16/B/ii

6.3.2.23 Form 31: Dish or tali

Form 31 is a flat dish with low walls. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as tableware

(Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.27).

Variant 31/A/A/1

Dish form without prominent rim and a convex upper body and rounded rim. This variant was widely distributed within the sequence of ASW2 and has clear

concentration in periods G and I. It first appeared in the sequence at the beginning of period K.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	2	30	20	31/A/A/1	16/B/ii
4	A	CXIV	1	5	18	31/A/A/1	16/B/ii
4	A	CXIV	1	45	20	31/A/A/1	16/B/ii
4	A	CXIV	1	10	20	31/A/A/1	16/B/ii
4	A	CXIV	1	25	20	31/A/A/1	16/B/iii
4	A	CXIV	1	30	20	31/A/A/1	16/B/iii
4	A	CXIV	2	15	22	31/A/A/1	16/B/iii
4	A	CXIV	1	5	18	31/A/A/1	16/B/iii
4	A	CXIV	1	10	20	31/A/A/1	16/B/iii
4	A	CXIV	1	20	18	31/A/A/1	18/A/i
4	A	CXIV	1	30	24	31/A/A/1	18/A/ii
4	A	CXIV	7	175	24	31/A/A/1	18/A/ii
4	A	CXIV	2	40	20	31/A/A/1	18/A/ii
4	A	CXIV	1	15	20	31/A/A/1	18/A/ii
4	A	CXIV	3	105	22	31/A/A/1	18/A/ii
4	A	CXIV	1	45	22	31/A/A/1	18/A/ii
4	A	CXIV	3	65	24	31/A/A/1	18/A/iii
4	A	CXIV	6	95	20	31/A/A/1	18/A/iii
4	A	CXIV	9	215	18	31/A/A/1	18/A/iii
4	A	CXIV	1	15	20	31/A/A/1	18/A/iii
4	A	CXIV	1	10	20	31/A/A/1	18/A/iii
4	A	CXIV	2	45	22	31/A/A/1	18/A/iii
4	A	CXIV	4	110	18	31/A/A/1	18/A/iii
4	A	CXIV	1	45	24	31/A/A/1	18/B/i
4	A	CXIV	1	45	28	31/A/A/1	18/B/i
3	A1	CXV	1	25	24	31/A/A/1	18/A/ii
3	A1	CXV	1	25	18	31/A/A/1	18/A/iii
1	A2	CXVIII	1	15	22	31/A/A/1	16/B/ii
1	A2	CXVIII	2	60	22	31/A/A/1	16/B/iii
25	B1	XCVII	4	45	22	31/A/A/1	16/B/ii
25	B1	XCVII	5	90	22	31/A/A/1	16/B/ii
55	B1	XCVI	1	15	22	31/A/A/1	18/A/iii
55	B1	XCVI	1	45	22	31/A/A/1	18/A/iii

Unglazed Ceramics

236	B1	XCVI	1	50	18	31/A/A/1	18/A/iii
25	B1	XCVII	3	50	20	31/A/A/1	18/A/iii
25	B1	XCVII	5	70	20	31/A/A/1	18/A/iii
25	B1	XCVII	2	45	24	31/A/A/1	18/A/iii
27	B2	C	2	25	20	31/A/A/1	18/A/i
27	B2	C	1	35	26	31/A/A/1	18/A/i
26	B3	CIV	1	25	20	31/A/A/1	16/B/iii
26	B3	CIV	1	10	15	31/A/A/1	18/A/iii
9	B4	CVI	1	15	22	31/A/A/1	16/B/i
9	B4	CVI	3	190	28	31/A/A/1	16/B/i
9	B4	CVI	3	65	20	31/A/A/1	16/B/iii
9	B4	CVI	2	45	18	31/A/A/1	18/A/iii
9	B4	CVI	1	25	20	31/A/A/1	18/A/iii
5	B5	CXII	1	10	18	31/A/A/1	16/B/i
5	B5	CXII	2	110	22	31/A/A/1	18/A/i
17	B5	CXIII	1	45	22	31/A/A/1	18/A/i
5	B5	CXII	1	10	20	31/A/A/1	18/A/iii
17	B5	CXIII	1	35	20	31/A/A/1	18/A/iii
294	D	XCV	1	10	20	31/A/A/1	16/B/i
359	D	XCV	1	30	20	31/A/A/1	16/B/i
215	D	XCV	2	25	20	31/A/A/1	18/A/i
217	D	XCV	1	10	18	31/A/A/1	18/A/i
255	D	XCV	1	40	20	31/A/A/1	18/A/i
299	D	XCV	1	40	20	31/A/A/1	18/A/i
324	D	XCV	1	10	16	31/A/A/1	18/A/i
324	D	XCV	1	20	18	31/A/A/1	18/A/i
56	D	XCV	1	20	18	31/A/A/1	18/A/i
256	D	XCV	2	55	20	31/A/A/1	18/A/i
357	D	XCV	1	20	20	31/A/A/1	18/A/i
175	D	XCV	1	30	26	31/A/A/1	18/A/iii
175	D	XCV	2	25	18	31/A/A/1	18/A/iii
175	D	XCV	5	90	24	31/A/A/1	18/A/iii
190	D	XCV	1	50	18	31/A/A/1	18/A/iii
190	D	XCV	3	80	20	31/A/A/1	18/A/iii
190	D	XCV	1	25	20	31/A/A/1	18/A/iii
197	D	XCV	1	25	16	31/A/A/1	18/A/iii
204	D	XCV	1	15	20	31/A/A/1	18/A/iii
211	D	XCV	1	15	14	31/A/A/1	18/A/iii
272	D	XCV	1	20	20	31/A/A/1	18/A/iii
273	D	XCV	1	15	18	31/A/A/1	18/A/iii
292	D	XCV	1	35	20	31/A/A/1	18/A/iii
299	D	XCV	3	60	20	31/A/A/1	18/A/iii
324	D	XCV	1	10	16	31/A/A/1	18/A/iii
353	D	XCV	1	40	20	31/A/A/1	18/A/iii
359	D	XCV	1	10	22	31/A/A/1	18/A/iii
359	D	XCV	3	68	22	31/A/A/1	18/A/iii
360	D	XCV	1	25	24	31/A/A/1	18/A/iii
360	D	XCV	1	30	20	31/A/A/1	18/A/iii
56	D	XCV	2	45	16	31/A/A/1	18/A/iii
175	D	XCV	1	55	26	31/A/A/1	18/B/i
364	F	XCII	4	60	22	31/A/A/1	16/B/i
364	F	XCII	1	75	22	31/A/A/1	16/B/i
365	F	XCII	3	50	22	31/A/A/1	16/B/i
365	F	XCII	3	90	22	31/A/A/1	16/B/i
366	F	XCII	2	40	22	31/A/A/1	16/B/i
365	F	XCII	1	25	18	31/A/A/1	16/B/i
365	F	XCII	5	959	22	31/A/A/1	16/B/i

Anuradhapura: The Artefacts

355	F	XCIII	1	30	26	31/A/A/1	16/B/i
264	F	XCIII	4	70	18	31/A/A/1	16/B/i
264	F	XCIII	2	65	36	31/A/A/1	16/B/i
366	F	XCII	1	10	18	31/A/A/1	16/B/ii
364	F	XCII	2	45	22	31/A/A/1	18/A/i
365	F	XCII	2	60	28	31/A/A/1	18/A/i
367	F	XCII	1	40	22	31/A/A/1	18/A/i
367	F	XCII	1	25	22	31/A/A/1	18/A/i
365	F	XCII	2	35	22	31/A/A/1	18/A/i
203	F	XCIII	1	15	20	31/A/A/1	18/A/i
358	F	XCIII	1	20	20	31/A/A/1	18/A/i
364	F	XCII	1	50	22	31/A/A/1	18/A/ii
365	F	XCII	3	50	22	31/A/A/1	18/A/ii
365	F	XCII	1	20	22	31/A/A/1	18/A/ii
365	F	XCII	3	55	16	31/A/A/1	18/A/ii
366	F	XCII	4	80	22	31/A/A/1	18/A/ii
367	F	XCII	4	145	22	31/A/A/1	18/A/ii
367	F	XCII	1	15	22	31/A/A/1	18/A/ii
365	F	XCII	10	205	24	31/A/A/1	18/A/ii
194	F	XCIII	1	15	18	31/A/A/1	18/A/ii
200	F	XCIII	2	20	18	31/A/A/1	18/A/ii
203	F	XCIII	1	15	20	31/A/A/1	18/A/ii
264	F	XCIII	1	30	18	31/A/A/1	18/A/ii
355	F	XCIII	2	25	22	31/A/A/1	18/A/ii
209	F	XCIII	2	35	20	31/A/A/1	18/A/ii
264	F	XCIII	1	30	16	31/A/A/1	18/A/ii
358	F	XCIII	8	45	22	31/A/A/1	18/A/ii
367	F	XCII	7	310	26	31/A/A/1	18/B/i
264	F	XCIII	1	15	20	31/A/A/1	18/B/i
634	G2	LXIX	8	90	20	31/A/A/1	16/B/i
634	G2	LXIX	1	20	18	31/A/A/1	16/B/i
616	G2	LXX	1	25	30	31/A/A/1	16/B/i
616	G2	LXX	3	35	20	31/A/A/1	16/B/i
616	G2	LXX	1	25	20	31/A/A/1	16/B/i
616	G2	LXX	7	65	20	31/A/A/1	16/B/i
616	G2	LXX	2	15	20	31/A/A/1	16/B/i
638	G2	LXXIII	5	60	26	31/A/A/1	16/B/i
628	G2	LXXIII	2	40	26	31/A/A/1	16/B/i
628	G2	LXXIII	1	25	16	31/A/A/1	16/B/i
634	G2	LXIX	1	10	18	31/A/A/1	16/B/ii
616	G2	LXX	3	30	20	31/A/A/1	16/B/ii
634	G2	LXIX	2	60	22	31/A/A/1	18/A/i
634	G2	LXIX	1	15	18	31/A/A/1	18/A/i
634	G2	LXIX	1	15	20	31/A/A/1	18/A/ii
634	G2	LXIX	2	25	18	31/A/A/1	18/A/ii
616	G2	LXX	1	25	26	31/A/A/1	18/A/iii
638	G2	LXXIII	1	25	25	31/A/A/1	18/A/iii
634	G2	LXIX	1	15	18	31/A/A/1	20/A/i
491	G3	LXXVI	2	35	22	31/A/A/1	16/B/i
496	G3	LXXVI	1	20	22	31/A/A/1	16/B/i
630	G3	LXXVI	1	20	22	31/A/A/1	16/B/i
630	G3	LXXVI	11	130	22	31/A/A/1	16/B/i
630	G3	LXXVI	1	5	16	31/A/A/1	18/A/i
630	G3	LXXVI	1	10	16	31/A/A/1	18/A/i
630	G3	LXXVI	3	45	22	31/A/A/1	18/A/ii
632	G4	LXXXIII	4	55	24	31/A/A/1	16/B/i
632	G4	LXXXIII	5	195	24	31/A/A/1	16/B/i

Unglazed Ceramics

632	G4	LXXXIII	1	25	16	31/A/A/1	16/B/ii
632	G4	LXXXIII	20	290	24	31/A/A/1	16/B/ii
470	G4	LXXXI	1	10	20	31/A/A/1	16/B/iii
632	G4	LXXXIII	1	10	22	31/A/A/1	16/B/iii
632	G4	LXXXIII	7	75	20	31/A/A/1	18/A/ii
632	G4	LXXXIII	1	25	20	31/A/A/1	18/A/ii
632	G4	LXXXIII	1	20	30	31/A/A/1	18/A/iii
632	G4	LXXXIII	2	80	24	31/A/A/1	18/A/iii
632	G4	LXXXIII	4	60	24	31/A/A/1	18/A/iii
632	G4	LXXXIII	4	60	20	31/A/A/1	18/A/iii
632	G4	LXXXIII	2	30	20	31/A/A/1	18/A/iii
416	G5	XCI	3	140	22	31/A/A/1	16/B/ii
424	G5	XCI	14	160	22	31/A/A/1	16/B/ii
424	G5	XCI	3	30	22	31/A/A/1	16/B/ii
424	G5	XCI	3	85	25	31/A/A/1	16/B/ii
425	G5	XCI	1	10	20	31/A/A/1	16/B/ii
416	G5	XCI	1	10	18	31/A/A/1	16/B/ii
416	G5	XCI	19	275	20	31/A/A/1	16/B/ii
422	G5	XCI	1	10	20	31/A/A/1	16/B/ii
427	G5	XCI	3	40	20	31/A/A/1	16/B/ii
440	G5	XCI	3	15	20	31/A/A/1	16/B/ii
440	G5	XCI	5	50	20	31/A/A/1	16/B/ii
437	G5	LXXXVII	10	140	18	31/A/A/1	16/B/ii
437	G5	LXXXVII	2	35	22	31/A/A/1	16/B/ii
426	G5	LXXXVIII	2	15	22	31/A/A/1	16/B/ii
427	G5	XCI	2	40	22	31/A/A/1	16/B/iii
424	G5	XCI	1	25	24	31/A/A/1	18/A/ii
424	G5	XCI	2	25	22	31/A/A/1	18/A/ii
416	G5	XCI	1	35	24	31/A/A/1	18/A/ii
416	G5	XCI	3	30	20	31/A/A/1	18/A/ii
431	G5	XCI	2	25	20	31/A/A/1	18/A/ii
424	G5	XCI	3	50	20	31/A/A/1	18/A/iii
424	G5	XCI	1	15	22	31/A/A/1	18/A/iii
424	G5	XCI	3	55	22	31/A/A/1	18/A/iii
425	G5	XCI	1	25	22	31/A/A/1	18/A/iii
416	G5	XCI	1	65	22	31/A/A/1	18/A/iii
440	G5	XCI	1	5	22	31/A/A/1	18/A/iii
437	G5	LXXXVII	17	255	26	31/A/A/1	18/A/iii
437	G5	LXXXVII	1	40	20	31/A/A/1	18/A/iii
727	H	LXIV	1	75	26	31/A/A/1	16/B/iii
730	H1	LXIII	2	20	26	31/A/A/1	16/B/ii
730	H1	LXIII	1	35	30	31/A/A/1	16/B/ii
1125	I1	XXIII	1	55	26	31/A/A/1	16/B/ii
1125	I1	XXIII	1	25	20	31/A/A/1	16/B/ii
1125	I1	XXIII	2	45	18	31/A/A/1	16/B/ii
1163	I1	XXIV	1	10	20	31/A/A/1	18/A/iii
1101	I2	XXVI	1	20	22	31/A/A/1	16/B/ii
977	I3	XXVIII	2	20	22	31/A/A/1	16/B/ii
977	I3	XXVIII	1	15	24	31/A/A/1	16/B/ii
1119	I3	XXIX	1	10	14	31/A/A/1	16/B/iii
1213	I3	XXIX	2	10	12	31/A/A/1	18/A/ii
977	I3	XXVIII	1	15	20	31/A/A/1	18/A/iii
1119	I3	XXIX	6	130	24,28	31/A/A/1	18/A/iii
961	I4	XXX	2	15	22	31/A/A/1	16/B/ii
962	I4	XXX	4	35	24	31/A/A/1	16/B/ii
961	I4	XXX	3	40	22	31/A/A/1	16/B/ii
961	I4	XXX	1	40	22	31/A/A/1	16/B/ii

Anuradhapura: The Artefacts

961	14	XXX	4	45	22	31/A/A/1	16/B/ii
961	14	XXX	1	15	24	31/A/A/1	16/B/ii
961	14	XXX	1	20	22	31/A/A/1	16/B/ii
1047	14	XXXI	2	20	18	31/A/A/1	16/B/ii
963	14	XXXI	1	10	20	31/A/A/1	16/B/ii
909	14	XXXI	1	10	22	31/A/A/1	16/B/ii
914	14	XXXII	3	30	24	31/A/A/1	16/B/ii
961	14	XXX	1	10	20	31/A/A/1	18/A/ii
908	14	XXXI	2	70	22	31/A/A/1	18/A/iii
909	14	XXXI	1	10	22	31/A/A/1	18/A/iii
880	15	XXXIII	2	25	22	31/A/A/1	16/B/ii
880	15	XXXIII	1	25	22	31/A/A/1	16/B/ii
880	15	XXXIII	1	10	22	31/A/A/1	16/B/ii
880	15	XXXIII	1	10	22	31/A/A/1	16/B/ii
880	15	XXXIII	1	15	20	31/A/A/1	16/B/ii
880	15	XXXIII	2	40	26	31/A/A/1	16/B/ii
880	15	XXXIII	2	25	26	31/A/A/1	16/B/ii
880	15	XXXIII	1	10	16	31/A/A/1	16/B/iii
880	15	XXXIII	1	15	22	31/A/A/1	18/A/ii
880	15	XXXIII	1	5	18	31/A/A/1	18/A/ii
880	15	XXXIII	1	15	20	31/A/A/1	18/A/ii
834	16	XXXVII	2	30	22	31/A/A/1	16/B/ii
834	16	XXXVII	2	35	22	31/A/A/1	16/B/ii
831	16	XXXIX	3	50	22	31/A/A/1	16/B/ii
831	16	XXXIX	4	65	22	31/A/A/1	16/B/ii
856	16	XXXVIII	1	10	18	31/A/A/1	16/B/ii
856	16	XXXVIII	1	20	20	31/A/A/1	16/B/ii
837	17	XXXV	5	35	18	31/A/A/1	16/B/ii
837	17	XXXV	2	35	22	31/A/A/1	16/B/ii
837	17	XXXV	2	15	22	31/A/A/1	16/B/ii
837	17	XXXV	1	15	18	31/A/A/1	16/B/ii
752	17	XLI	3	55	22	31/A/A/1	16/B/ii
772	17	XLII	1	15	20	31/A/A/1	16/B/ii
812	17	XLIV	1	10	24	31/A/A/1	16/B/ii
811	17	XLIV	1	10	22	31/A/A/1	16/B/ii
780	17	XLIV	3	35	10	31/A/A/1	16/B/ii
798	17	XLVI	1	10	20	31/A/A/1	16/B/ii
791	17	XLVII	6	70	16	31/A/A/1	16/B/ii
790	17	XLVII	5	65	22	31/A/A/1	16/B/ii
788	18	LIII	1	30	22	31/A/A/1	16/B/ii
788	18	LIII	1	20	30	31/A/A/1	16/B/ii
788	18	LIII	1	10	24	31/A/A/1	16/B/ii
768	18	LX	6	75	22	31/A/A/1	16/B/ii
768	18	LX	4	35	22	31/A/A/1	16/B/ii
768	18	LX	1	20	22	31/A/A/1	16/B/ii
767	18	LX	2	20	18	31/A/A/1	16/B/ii
767	18	LX	3	70	24	31/A/A/1	16/B/ii
767	18	LX	5	55	20	31/A/A/1	16/B/ii
767	18	LX	2	25	20	31/A/A/1	16/B/ii
767	18	LX	6	120	24	31/A/A/1	16/B/ii
788	18	LIII	1	20	24	31/A/A/1	16/B/ii
788	18	LIII	2	15	24	31/A/A/1	16/B/ii
1407	J2	XIV	1	10	22	31/A/A/1	16/B/ii
1407	J2	XIV	3	40	22	31/A/A/1	16/B/ii
1483	J3	XVII	1	15	12	31/A/A/1	16/B/ii
1496	J3	XII	5	140	24	31/A/A/1	16/B/ii
1372	J3	XVII	2	65	20	31/A/A/1	16/B/ii

Unglazed Ceramics

1496	J3	XII	1	10	18	31/A/A/1	17/B/ii
1290	J4	XIX	3	25	18	31/A/A/1	16/B/ii
1216	J4	XIX	1	15	16	31/A/A/1	16/B/ii
1175	J4	XVIII	2	35	24	31/A/A/1	18/A/iii
1195	J5	XXI	2	25	18	31/A/A/1	16/B/ii
1175	J5	XVIII	6	60	26	31/A/A/1	16/B/ii
1406	J2	XV	2	85	22	31/A/A/1	16/B/iii
1714	K1	VI	1	65	28	31/A/A/1	16/B/v
1617	K3	X	1	15	20	31/A/A/1	16/B/ii
1616	K3	VIII	1	15	20	31/A/A/1	16/B/iii

Variant 31/A/A/2

Dish form without prominent rim and a convex upper body and rounded rim. Variant 31/A/A/2 has an external groove. Four sherds of this variant were recovered from

periods A and B, while the remainder came from periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	60	20	31/A/A/2	16/B/ii
4	A	CXIV	1	10	20	31/A/A/2	16/B/iii
1	A2	CXVIII	1	20	20	31/A/A/2	18/A/iii
25	B1	XCVII	1	10	22	31/A/A/2	16/B/ii
880	I5	XXXIII	1	40	30	31/A/A/2	18/A/iii
1206	I6	XXXVI	5	115	24	31/A/A/2	16/B/ii
1206	I6	XXXVI	17	275	24	31/A/A/2	16/B/ii
1476	J3	XVII	3	40	16	31/A/A/2	16/B/ii
1476	J3	XVII	1	25	16	31/A/A/2	16/B/ii
1476	J3	XVII	2	25	16	31/A/A/2	16/B/iii
1293	J3	XVI	4	45	22	31/A/A/2	16/B/ii
1174	J5	XX	1	25	14	31/A/A/2	16/B/iii

Variant 31/A/A/4

Dish/plate form without prominent rim and a convex upper body and rounded rim. 31/A/A/4 is a very small version of variant 31/A and it first appeared in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
203	F	XCIII	1	10	14	31/A/A/4	18/A/ii
1406	J2	XV	1	30	18	31/A/A/4	16/B/iii

Variants 31/A/B/1 and 31/A/D/1

Dish/plate form without prominent rim and a convex upper body and rounded rim. Variant 31/A/B/1 has no carination in its profile and 31/A/D/1 is a slightly heavier

version. Variant 31/A/B/1 first appeared in period J and 31/A/D/1 in F.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	55	20	31/A/B/1	18/A/iii
25	B1	XCVII	1	85	20	31/A/B/1	18/A/iii
25	B1	XCVII	1	85	20	31/A/B/1	18/A/iii
25	B1	XCVII	2	70	22	31/A/B/1	18/A/iii
359	D	XCV	1	20	24	31/A/B/1	18/A/ii
359	D	XCV	2	220	24	31/A/B/1	18/A/ii
350	D	XCV	1	15	20	31/A/B/1	18/A/iii
365	F	XCII	2	50	24	31/A/B/1	18/A/iii
316	G2	LXX	3	115	28	31/A/B/1	16/B/ii
324	G5	XCI	1	20	20	31/A/B/1	18/A/ii
324	G5	XCI	1	10	22	31/A/B/1	18/A/iii

Anuradhapura: The Artefacts

1124	I1	XXV	1	40	26	31/A/B/1	16/B/ii
880	I5	XXXIII	2	30	18	31/A/B/1	16/B/ii
850	I6	XL	2	20	22	31/A/B/1	16/B/ii
850	I6	XL	2	25	22	31/A/B/1	16/B/ii
788	I8	LIII	1	10	22	31/A/B/1	16/B/ii
1476	J3	XVII	1	20	20	31/A/B/1	16/B/ii
4	A	CXIV	2	110	26	31/A/D/1	18/A/ii
4	A	CXIV	1	40	24	31/A/D/1	18/B/i
24	B2	C	2	115	32	31/A/D/1	18/B/i
17	B5	CXIII	1	20	16	31/A/D/1	18/A/iii
170	F	XCIII	1	15	18	31/A/D/1	18/A/ii
358	F	XCIII	1	35	22	31/A/D/1	18/A/iii
364	F	XCII	1	35	22	31/A/D/1	18/B/i

Variant 31/A/E/1

Dish/plate form without prominent rim and a convex upper body and rounded rim. Variant 31/A/E/1 is strongly curved high up in the body. Four sherds were

recovered from periods G and I, but the majority of examples were in the upper levels and in period F.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	5	22	31/A/E/1	16/B/ii
4	A	CXIV	3	115	28	31/A/E/1	18/A/ii
4	A	CXIV	1	25	24	31/A/E/1	18/A/iii
4	A	CXIV	1	10	26	31/A/E/1	18/A/iii
4	A	CXIV	5	100	20	31/A/E/1	18/A/iii
4	A	CXIV	3	205	20	31/A/E/1	18/A/iii
4	A	CXIV	4	135	24	31/A/E/1	18/A/iii
4	A	CXIV	1	15	18	31/A/E/1	18/A/iii
4	A	CXIV	1	30	20	31/A/E/1	18/A/iii
4	A	CXIV	4	90	20	31/A/E/1	18/A/iii
4	A	CXIV	1	15	18	31/A/E/1	18/A/iii
4	A	CXIV	1	25	22	31/A/E/1	18/A/iii
4	A	CXIV	3	110	16	31/A/E/1	18/A/iii
4	A	CXIV	1	45	20	31/A/E/1	18/B/ii
1	A2	CXVIII	2	30	22	31/A/E/1	18/A/iii
25	B1	XCVII	1	25	22	31/A/E/1	18/A/ii
55	B1	XCVI	1	20	20	31/A/E/1	18/A/iii
25	B1	XCVII	5	95	20	31/A/E/1	18/A/iii
25	B1	XCVII	1	20	20	31/A/E/1	18/A/iii
25	B1	XCVII	8	170	20	31/A/E/1	18/A/iii
26	B3	CIV	1	20	22	31/A/E/1	18/A/iii
9	B4	CVI	1	30	18	31/A/E/1	18/A/ii
5	B5	CXII	1	15	18	31/A/E/1	18/A/ii
5	B5	CXII	1	15	18	31/A/E/1	18/A/iii
5	B5	CXII	1	55	20	31/A/E/1	18/A/iii
5	B5	CXII	1	30	22	31/A/E/1	18/A/iii
263	C	XCV	1	15	20	31/A/E/1	18/A/ii
256	D	XCV	1	10	18	31/A/E/1	16/B/ii
261	D	XCV	1	15	20	31/A/E/1	18/A/ii
299	D	XCV	1	10	16	31/A/E/1	18/A/ii
156	D	XCV	1	20	20	31/A/E/1	18/A/iii
175	D	XCV	1	25	16	31/A/E/1	18/A/iii
190	D	XCV	1	10	16	31/A/E/1	18/A/iii
204	D	XCV	1	15	20	31/A/E/1	18/A/iii
215	D	XCV	1	45	20	31/A/E/1	18/A/iii
254	D	XCV	1	15	20	31/A/E/1	18/A/iii

Unglazed Ceramics

269/270	D	XCV	1	20	12	31/A/E/1	18/A/iii
294	D	XCV	1	40	20	31/A/E/1	18/A/iii
322	D	XCV	1	15	22	31/A/E/1	18/A/iii
359	D	XCV	2	50	22	31/A/E/1	18/A/iii
158	D	XCV	1	20	16	31/A/E/1	18/A/iii
358	F	XCIII	1	5	12	31/A/E/1	16/B/i
203	F	XCIII	2	25	20	31/A/E/1	18/A/ii
355	F	XCIII	1	20	20	31/A/E/1	18/A/ii
361	F	XCII	1	30	18	31/A/E/1	18/A/iii
364	F	XCII	6	175	24	31/A/E/1	18/A/iii
364	F	XCII	1	40	22	31/A/E/1	18/A/iii
365	F	XCII	1	15	22	31/A/E/1	18/A/iii
365	F	XCII	1	60	22	31/A/E/1	18/A/iii
367	F	XCII	1	195	18	31/A/E/1	18/A/iii
364	F	XCII	1	50	26	31/A/E/1	18/A/iii
365	F	XCII	2	70	22	31/A/E/1	18/A/iii
366	F	XCII	1	10	22	31/A/E/1	18/A/iii
200	F	XCIII	1	10	18	31/A/E/1	18/A/iii
203	F	XCIII	3	80	28	31/A/E/1	18/A/ii
209	F	XCIII	1	25	20	31/A/E/1	18/A/iii
632	G4	LXXXIII	1	5	18	31/A/E/1	16/B/iii
632	G4	LXXXIII	1	5	16	31/A/E/1	18/A/iii
416	G5	XCI	1	10	16	31/A/E/1	18/A/iii
880	I5	XXXIII	1	15	20	31/A/E/A	17/B/ii

6.3.2.24 Form 36: Shallow bowl

Shallow bowl with three variants (Fig. 6.28).

Variant 36/A/A/1

Form 36 is a shallow bowl with no carinations. Variant 36/A/A/1 has a large rim but it is not thickened internally. Most examples come from mixed layers, but two sherds come from period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	25	20	36/A/A/1	18/A/iii
261	D	XCV	1	40	20	36/A/A/1	18/A/ii
268	D	XCV	1	25	20	36/A/A/1	18/A/ii
325	D	XCV	4	140	18	36/A/A/1	18/A/ii
158	D	XCV	1	15	14	36/A/A/1	18/A/ii
253	D	XCV	1	35	20	36/A/A/1	18/A/ii
158	D	XCV	1	10	12	36/A/A/1	18/A/iii
324	D	XCV	1	30	20	36/A/A/1	18/A/iii
359	D	XCV	2	45	20	36/A/A/1	18/A/iii
359	D	XCV	1	20	14	36/A/A/1	18/A/iii
271	D	XCV	1	85	18	36/A/A/1	18/A/iii
358	F	XCIII	1	45	16	36/A/A/1	18/A/iii
1125	I1	XXIII	1	35	18	36/A/A/1	18/A/ii
1407	J2	XIV	1	40	16	36/A/A/1	16/B/ii
1290	J4	XIX	1	35	24	36/A/A/1	16/B/iii
			1	40	11	36/A/A/1	18/A/ii

Variant 36/A/A/4

Form 36 is a shallow bowl with no carinations. Variant 36/A/A/4 has a large rim which is slightly thickened internally. The two examples in period A are most likely

redeposited and the remainder are clearly placed at the beginning of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
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4	A	CXIV	1	35	18	36/A/A/4	18/A/ii
4	A	CXIV	1	30	20	36/A/A/4	18/A/iii
1125	I1	XXIII	2	45	22	36/A/A/4	18/A/iii
1101	I2	XXVI	1	35	22	36/A/A/4	18/A/iii

Variant 36/A/B/1

Form 36 is a shallow bowl with no carinations. Variant 36/A/B/1 has a large rim which is slightly thickened internally. This variant has less internal consistency. Two

sherds were recovered from period I and the others from younger layers.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	3	35	22	36/A/B/1	18/A/iii
51	B1	XCIX	2	35	24	36/A/B/1	18/A/iii
263	C	XCV	1	35	16	36/A/B/1	18/A/iii
263	C	XCV	1	25	14	36/A/B/1	18/A/iii
155	D	XCV	1	45	22	36/A/B/1	18/A/i
158	D	XCV	1	15	12	36/A/B/1	18/A/i
271	D	XCV	1	45	10	36/A/B/1	18/A/i
158	D	XCV	7	275	16	36/A/B/1	18/A/iii
196	D	XCV	1	25	14	36/A/B/1	18/A/iii
211	D	XCV	1	50	22	36/A/B/1	18/A/iii
217	D	XCV	1	20	20	36/A/B/1	18/A/iii
254	D	XCV	1	15	14	36/A/B/1	18/A/iii
256	D	XCV	1	15	12	36/A/B/1	18/A/iii
285	D	XCV	1	35	28	36/A/B/1	18/A/iii
295	D	XCV	1	20	24	36/A/B/1	18/A/iii
325	D	XCV	3	65	24	36/A/B/1	18/A/iii
56	D	XCV	1	30	20	36/A/B/1	18/A/iii
1124	I1	XXV	1	35	10	36/A/B/1	18/A/iii
833	I7	XLII	1	20	14	36/A/B/1	18/A/iii

6.3.2.25 Form 37: Medium-shallow bowl

Medium-shallow bowl with one variant (Fig. 6.28).

Variant 37/A/A/1

37/A/A/1 is a medium-shallow bowl with a non-thickened and vertical rim. First appearing in period J, this variant has distinct concentrations in periods I and G.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
3	A1	CXV	1	65	14	37/A/A/1	18/A/iii
25	B1	XCVII	1	5	10	37/A/A/1	17/B/iii
25	B1	XCVII	2	10	12	37/A/A/1	18/A/iii
25	B1	XCVII	2	20	10	37/A/A/1	18/A/iii
17	B5	CXIII	1	40	22	37/A/A/1	18/A/iii
325	D	XCV	1	15	12	37/A/A/1	18/A/i
204	D	XCV	1	10	18	37/A/A/1	18/A/iii
50	D	XCV	1	25	18	37/A/A/1	18/A/iii
200	F	XCIII	2	30	20	37/A/A/1	18/A/iii
628	G2	LXXIII	1	10	12	37/A/A/1	16/B/iii
634	G2	LXIX	1	10	12	37/A/A/1	18/A/iii
634	G2	LXIX	1	5	12	37/A/A/1	18/A/iii
616	G2	LXX	1	5	12	37/A/A/1	18/A/iii
616	G2	LXX	1	15	12	37/A/A/1	18/A/iii
632	G4	LXXXIII	1	10	12	37/A/A/1	18/A/iii
632	G4	LXXXIII	1	20	14	37/A/A/1	18/A/iii

Unglazed Ceramics

632	G4	LXXXIII	1	5	10	37/A/A/1	18/A/iii
416	G5	XCI	1	5	10	37/A/A/1	16/B/ii
424	G5	XCI	2	10	12	37/A/A/1	16/B/iii
416	G5	XCI	1	10	12	37/A/A/1	16/B/iii
424	G5	XCI	1	5	10	37/A/A/1	18/A/iii
416	G5	XCI	2	10	14	37/A/A/1	18/A/iii
1153	I1	XXIV	3	25	12	37/A/A/1	16/B/ii
1125	I1	XXIII	1	15	16	37/A/A/1	16/B/iii
1125	I1	XXIII	2	20	12	37/A/A/1	16/B/iii
1101	I2	XXVI	8	60	14	37/A/A/1	16/B/ii
1101	I2	XXVI	5	55	12	37/A/A/1	16/B/ii
1213	I3	XXIX	1	5	12	37/A/A/1	16/B/ii
1213	I3	XXIX	1	5	12	37/A/A/1	18/A/iii
962	I4	XXX	1	5	14	37/A/A/1	16/B/ii
1047	I4	XXXI	1	5	12	37/A/A/1	16/B/iii
880	I5	XXXIII	1	10	18	37/A/A/1	18/A/iii
1206	I6	XXXVI	1	10	12	37/A/A/1	16/B/ii
1206	I6	XXXVI	4	50	14	37/A/A/1	16/B/ii
834	I6	XXXVII	1	5	12	37/A/A/1	16/B/ii
1206	I6	XXXVI	2	20	12	37/A/A/1	16/B/iii
1206	I6	XXXVI	2	20	10	37/A/A/1	18/A/ii
831	I6	XXXIX	1	5	12	37/A/A/1	18/A/iii
837	I7	XXXV	1	10	10	37/A/A/1	16/B/iii
752	I7	XLI	1	10	12	37/A/A/1	16/B/iii
843	I7	XLII	1	10	14	37/A/A/1	18/A/iii
790	I7	XLVII	1	10	10	37/A/A/1	18/A/iii
729	I8	LIII	3	20	12	37/A/A/1	16/B/iii
767	I8	LX	3	35	12	37/A/A/1	16/B/iii
767	I8	LX	2	25	12	37/A/A/1	16/B/iii
767	I8	LX	3	15	12	37/A/A/1	16/B/iii
768	I8	LX	1	5	8	37/A/A/1	18/A/iii
1175	J4	XVIII	1	15	10	37/A/A/1	16/B/ii
1175	J4	XVIII	1	35	10	37/A/A/1	16/B/ii
1175	J4	XVIII	1	20	12	37/A/A/1	16/B/ii
1191	J5	XXI	1	30	12	37/A/A/1	16/B/iii
1172	J5	XXII	1	10	10	37/A/A/1	18/A/ii
1208	J5	XXI	1	5	10	37/A/A/1	18/A/iii

6.3.2.26 Form 38: Deep bowl

Deep bowl with five variants (Fig. 6.28).

Variant 38/A/A/1

Form 38 is a deep bowl and variant 38/A/A/1 has an unthickened but rounded rim. This variant is extremely

useful for chronological differentiation as it is mainly restricted to periods I and J but first appears in period K.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	10	105	10	38/A/A/1	16/B/ii
880	I5	XXXIII	1	10	12	38/A/A/1	16/B/ii
5	B5	CXII	1	10	10	38/A/A/1	18/A/iii
190	D	XCV	1	15	12	38/A/A/1	18/A/iii
292	D	XCV	1	10	10	38/A/A/1	18/A/iii
365	F	XCII	2	70	10	38/A/A/1	18/A/iii
727	H	LXIV	1	10	10	38/A/A/1	16/B/iii
1125	I1	XXIII	12	90	12,16	38/A/A/1	16/B/ii
1125	I1	XXIII	1	15	18	38/A/A/1	16/B/ii
1125	I1	XXIII	2	20	10	38/A/A/1	16/B/ii

Anuradhapura: The Artefacts

1125	I1	XXIII	2	25	12	38/A/A/1	16/B/Ii
1125	I1	XXIII	9	100	12	38/A/A/1	16/B/Ii
1125	I1	XXIII	1	25	14	38/A/A/1	16/B/Ii
1125	I1	XXIII	1	20	12	38/A/A/1	16/B/Ii
1125	I1	XXIII	1	5	10	38/A/A/1	16/B/Ii
1125	I1	XXIII	4	40	12	38/A/A/1	16/B/Ii
1124	I1	XXV	1	5	10	38/A/A/1	16/B/Ii
1166	I1	XXIV	2	10	12	38/A/A/1	16/B/Ii
1125	I1	XXIII	3	30	12	38/A/A/1	16/B/Iii
1125	I1	XXIII	4	25	12	38/A/A/1	16/B/Iii
1125	I1	XXIII	1	5	10	38/A/A/1	16/B/Iii
1125	I1	XXIII	3	35	12	38/A/A/1	16/B/Iii
1127	I1	XXIV	3	15	8	38/A/A/1	16/B/Iii
1123	I1	XXIV	1	5	8	38/A/A/1	16/B/Iii
1101	I2	XXVI	12	75	10,12	38/A/A/1	16/B/Ii
1116	I2	XXVII	1	15	18	38/A/A/1	16b/Ii
977	I3	XXVIII	1	10	10	38/A/A/1	16/B/Ii
1213	I3	XXIX	1	10	18	38/A/A/1	16/B/Ii
1119	I3	XXIX	5	45	12	38/A/A/1	16/B/Ii
977	I3	XXVIII	1	10	10	38/A/A/1	16/B/Iii
962	I4	XXX	1	25	22	38/A/A/1	16/B/Ii
962	I4	XXX	1	10	14	38/A/A/1	16/B/Ii
961	I4	XXX	1	15	12	38/A/A/1	16/B/Ii
961	I4	XXX	1	5	12	38/A/A/1	16/B/Ii
963	I4	XXXI	1	10	14	38/A/A/1	16/B/Ii
961	I4	XXX	1	10	10	38/A/A/1	16/B/Iii
976	I4	XXXI	1	5	12	38/A/A/1	16/B/Iii
964	I4	XXXII	1	10	10	38/A/A/1	16/B/Iii
914	I4	XXXII	1	15	12	38/A/A/1	16/B/Iii
905	I4	XXXII	1	10	14	38/A/A/1	16/B/Iii
963	I4	XXXI	1	10	14	38/A/A/1	18/A/Ii
997	I4	XXXI	1	10	10	38/A/A/1	18/A/Iii
959	I4	XXXI	1	10	12	38/A/A/1	18/A/Iii
880	I5	XXXIII	1	10	12	38/A/A/1	16/B/Iii
880	I5	XXXIII	1	10	16	38/A/A/1	16/B/Iii
880	I5	XXXIII	2	20	14	38/A/A/1	16/B/Iii
880	I5	XXXIII	1	10	14	38/A/A/1	18/A/Iii
880	I5	XXXIII	1	5	12	38/A/A/1	18/A/Iii
1383	I6	XXXVI	2	15	10	38/A/A/1	16/B/Ii
1383	I6	XXXVI	4	75	10	38/A/A/1	16/B/Ii
1383	I6	XXXVI	2	20	10,12	38/A/A/1	16/B/Ii
850	I6	XL	2	10	10	38/A/A/1	16/B/Ii
831	I6	XXXIX	1	10	12	38/A/A/1	16/B/Iii
810	I6	XLIX	1	10	12	38/A/A/1	16/B/Iii
837	I7	XXXV	1	5	12	38/A/A/1	16/B/Ii
772	I7	XLII	1	5	10	38/A/A/1	16/B/Ii
791	I7	XLVII	1	10	10	38/A/A/1	16/B/Ii
791	I7	XLVII	1	10	10	38/A/A/1	16/B/Ii
798	I7	XLVI	1	15	10	38/A/A/1	16/B/Ii
791	I7	XLVII	2	15	12	38/A/A/1	16/B/Iii
837	I7	XXXV	1	10	10	38/A/A/1	17/B/Iii
788	I8	LIII	2	40	10	38/A/A/1	16/B/Iii
729	I8	LIII	1	10	12	38/A/A/1	16/B/Iii
729	I8	LIII	2	20	10	38/A/A/1	18/A/Iii
1407	J2	XIV	2	80	14	38/A/A/1	16/B/Ii
1485	J2	XV	1	10	10	38/A/A/1	16/B/Ii
1485	J2	XV	3	30	12	38/A/A/1	16/B/Ii

Unglazed Ceramics

1463	J2	XV	2	20	10	38/A/A/1	16/B/ii
1463	J2	XV	1	10	10	38/A/A/1	16/B/iii
1406	J2	XV	13	135	12	38/A/A/1	16/B/iii
1496	J3	XII	2	15	12	38/A/A/1	16/B/ii
1391	J3	XVII	1	10	12	38/A/A/1	16/B/ii
1382	J3	XVII	1	5	12	38/A/A/1	16/B/ii
1476	J3	XVII	3	45	12	38/A/A/1	16/B/ii
1476	J3	XVII	1	5	12	38/A/A/1	16/B/ii
1475	J3	XVII	1	20	12	38/A/A/1	16/B/ii
1474	J3	XVII	2	20	12	38/A/A/1	16/B/ii
1473	J3	XVII	4	30	12	38/A/A/1	16/B/ii
1473	J3	XVII	2	45	12	38/A/A/1	16/B/ii
1391	J3	XVII	1	10	12	38/A/A/1	16/B/ii
1382	J3	XVII	1	20	10	38/A/A/1	16/B/ii
1362	J3	XVII	2	5	8	38/A/A/1	16/B/ii
1361	J3	XVII	1	10	8	38/A/A/1	16/B/ii
1476	J3	XVII	1	5	12	38/A/A/1	16/B/iii
1476	J3	XVII	2	40	10	38/A/A/1	16/B/iii
1475	J3	XVII	1	10	12	38/A/A/1	16/B/iii
1476	J3	XVII	1	15	10	38/A/A/1	18/A/ii
1340	J3	XVII	2	10	10	38/A/A/1	16/B/ii
1293	J3	XVI	3	35	12	38/A/A/1	16/B/ii
1293	J3	XVI	2	10	12	38/A/A/1	16/B/iii
1293	J3	XVI	2	10	12	38/A/A/1	16/B/iii
1293	J3	XVI	2	35	10	38/A/A/1	16/B/iii
1293	J3	XVI	2	35	10	38/A/A/1	16/B/iii
1290	J4	XIX	1	15	20	38/A/A/1	16/B/i
1175	J4	XVIII	1	10	12	38/A/A/1	16/B/ii
1175	J4	XVIII	1	10	12	38/A/A/1	16/B/ii
1175	J4	XVIII	1	20	12	38/A/A/1	16/B/ii
1216	J4	XIX	5	70	14	38/A/A/1	16/B/ii
1216	J4	XIX	2	70	14	38/A/A/1	16/B/ii
1292	J4	XIX	1	5	10	38/A/A/1	16/B/ii
1290	J4	XIX	2	15	16	38/A/A/1	16/B/ii
1290	J4	XIX	2	10	14	38/A/A/1	16/B/ii
1274	J4	XIX	1	5	4	38/A/A/1	16/B/ii
1244	J4	XIX	2	15	12	38/A/A/1	16/B/ii
1226	J4	XIX	1	5	10	38/A/A/1	16/B/ii
1174	J4	XIX	1	5	8	38/A/A/1	16/B/ii
1174	J5	XX	2	20	10	38/A/A/1	16/B/ii
1174	J5	XX	2	25	22	38/A/A/1	16/B/ii
1208	J5	XXI	2	25	10,14	38/A/A/1	16/B/ii
1172	J5	XXII	1	10	12	38/A/A/1	16/B/ii
1172	J5	XXII	4	50	12	38/A/A/1	16/B/ii
1172	J5	XXII	4	25	12	38/A/A/1	16/B/ii
1175	J5	XVIII	2	20	10	38/A/A/1	16/B/ii
1191	J5	XXI	1	20	12	38/A/A/1	16/B/iii
1172	J5	XXII	8	70	12	38/A/A/1	16/B/iii
1172	J5	XXII	2	60	12	38/A/A/1	16/B/iii
1174	J5	XXII	1	15	14	38/A/A/1	16/B/iii
1714	J5	XX	1	10	16	38/A/A/1	18/A/ii
1616	K1	VI	1	40	22	38/A/A/1	16/B/iii
	K3	VIII	1	15	14	38/A/A/1	16/B/iii

Variants 38/A/A/2 and 38/A/A/3

Form 38 is a deep bowl and variant 38/A/A/2 has a grooved exterior. Variant 38/A/A/3 has a slightly

concave belly. Both are extremely useful for chronological differentiation as they are mainly restricted

to period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1101	I2	XXVI	3	25	12	38/A/A/2	16/B/ii
1485	J2	XV	2	40	16	38/A/A/2	16/B/ii
1174	J5	XX	1	25	12	38/A/A/2	16/B/ii
1473	J3	XVII	1	125	12	38/A/A/3	16/B/ii

Variants 38/A/B/1

Form 38 is a deep bowl and variant 38/A/B/1 has an unthickened but rounded rim and its upper belly tapers inwards. Again, this variant is extremely useful for

chronological differentiation as it is mainly restricted to the early part of ASW2's sequence, periods J and K.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1463	J2	XV	2	40	10	38/A/B/1	16/B/ii
1487	J2	XV	3	10	12	38/A/B/1	16/B/iii
1496	J3	XII	1	10	18	38/A/B/1	17/B/ii
1615	K3	X	1	5	10	38/A/B/1	16/B/iii
1615	K3	X	1	40	10	38/A/B/1	16/B/iii
1616	K3	VIII	1	20	12	38/A/B/1	18/A/iii
1616	K3	VIII	1	20	12	38/A/B/1	16/B/iii

Variant 38/A/C/1

Form 38 is a deep bowl. Variant 38/A/C/1 has an unthickened but rounded rim and it flares out in the upper belly. Again, this variant is extremely useful for

chronological differentiation as it is mainly restricted to period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
273	D	XCV	1	20	18	38/A/C/1	18/A/iii
628	G2	LXXIII	1	10	12	38/A/C/1	16/B/ii
1125	I1	XXIII	1	5	12	38/A/C/1	16/B/ii
1123	I1	XXIV	1	5	8	38/A/C/1	16/B/ii
1101	I2	XXVI	1	5	12	38/A/C/1	16/B/ii
977	I3	XXVIII	1	15	12	38/A/C/1	16/B/ii
961	I4	XXX	2	10	12	38/A/C/1	16/B/ii
961	I4	XXX	1	5	14	38/A/C/1	16/B/ii
961	I4	XXX	1	5	12	38/A/C/1	16/B/ii
880	I5	XXXIII	1	5	10	38/A/C/1	16/B/ii
834	I6	XXXVII	1	5	12	38/A/C/1	16/B/ii
856	I6	XXXVIII	2	30	12	38/A/C/1	16/B/ii
850	I6	XL	1	10	10	38/A/C/1	16/B/ii
850	I6	XL	1	5	10	38/A/C/1	17/B/ii
837	I7	XXXV	2	15	10	38/A/C/1	16/B/ii
790	I7	XLVII	1	10	12	38/A/C/1	16/B/ii
729	I8	LIII	1	10	10	38/A/C/1	16/B/ii

6.3.2.27 Form 40: Deep bowl

Deep bowl with one variant (Fig. 6.29).

Variant 40/A/A/1

Form 40 is a deep bowl and variant 40/A/A/1 has an unthickened rim. This form first appears in period J and is concentrated in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
19	B4	CX	1	15	10	40/A/A/1	17/B/ii
630	G3	LXXVI	2	15	12	40/A/A/1	16/B/ii
630	G3	LXXVI	1	5	10	40/A/A/1	18/A/iii
1125	I1	XXIII	3	25	12	40/A/A/1	16/B/ii
1125	I1	XXIII	1	10	10	40/A/A/1	16/B/ii
1101	I2	XXVI	1	20	12	40/A/A/1	16/B/ii
1101	I2	XXVI	1	15	12	40/A/A/1	16/B/iii
1101	I2	XXVI	1	5	14	40/A/A/1	16/B/iii
1116	I2	XXVII	2	10	10	40/A/A/1	16/B/iii
1101	I2	XXVI	5	40	14	40/A/A/1	16/B/ii
1119	I3	XXIX	1	10	10	40/A/A/1	16/B/iii
961	I4	XXX	1	10	10	40/A/A/1	16/B/iii
961	I4	XXX	1	5	10	40/A/A/1	16/B/iii
962	I4	XXX	1	5	12	40/A/A/1	16/B/iii
1206	I6	XXXVI	1	10	14	40/A/A/1	16/B/ii
856	I6	XXXVIII	1	5	12	40/A/A/1	18/A/iii
1216	J4	XIX	1	5	10	40/A/A/1	18/A/iii

6.3.2.28 Form 44: Flat bowl or tali

Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as

tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.29).

Variants 44/C/A/1, 44/E/A/1, 44/F/A/1 and 44/G/A/1

Form 44 is a flat bowl approaching a *tali* form. Variant 44/C/A/1 is very shallow and has a vertical rim, 44/E/A/1 has an internally thickened rim, 44/F/A/1 has a thickened

and everted rim and 44/G/A/1 has an out-turned rim. Variant 44/C/A/1 is found in the upper levels of the sequence, but the other three are found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	5	16	44/C/A/1	18/A/iii
25	B1	XCVII	1	35	20	44/C/A/1	18/A/iii
286	D	XCV	1	15	22	44/C/A/1	18/A/ii
353	D	XCV	1	75	26	44/C/A/1	18/A/ii
1383	I6	XXXVI	1	55	32	44/E/A/1	18/B/ii
964	I4	XXXII	1	10	14	44/F/A/1	18/A/iii
788	I8	LIII	1	15	18	44/G/A/1	18/A/iii

6.3.2.29 Form 47: Shallow bowl form

Form 47 is a non-carinated shallow bowl forming the transition between flat and shallow forms (Fig. 6.29).

Variant 47/C/A/1

Variant 47/C/A/1 has an elongated rim and was found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1119	I3	XXIX	2	35	16	47/C/A/1	18/A/iii

6.3.2.30 Form 48: Wide bowl or mati-koppe

Form 48 is a non-carinated wide bowl. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as

tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.29).

Variants 48/A/A/1 and 48/C/A/1

Form 48 is a non-carinated wide bowl. Variant 48/A/A/1

has an internally thickened, pointed lip facing inwards,

while 48/C/A/1 has an everted rim. Variant 48/A/A/1 periods J and I.
was recovered from period J and 48/C/A/1 from both

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1359	J3	XVII	1	80	20	48/A/A/1	16/B/iii
1101	I2	XXVI	1	5	24	48/C/A/1	18/A/ii
834	I6	XXXVII	1	10	14	48/C/A/1	18/A/iii
1172	J5	XXII	1	15	16	48/C/A/1	18/A/iii

6.3.2.31 Form 51: Lamp or pahan

Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *pahan*, which is used as an oil lamp (Deraniyagala, pers. comm.) (Fig. 6.30).

Variant 51/A/A/1

Base of small, rounded clay oil lamp found in period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
729	I8	LIII	1	15	10	51/A/A/1	18/A/iii

6.3.2.32 Form 53: Rimmed bowl or mati-koppe

Form 53 is a rimmed bowl. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as tableware

(Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.30).

Variant 53/A/A/2

Pointed and everted rim above vertical belly. With the exception of a single example in period J, this form was concentrated (redeposited) in period A.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	35	18	53/A/A/2	18/A/ii
4	A	CXIV	1	40	22	53/A/A/2	18/A/iii
4	A	CXIV	1	15	20	53/A/A/2	18/A/iii
1407	J2	XIV	1	15	16	53/A/A/2	18/A/iii

6.3.2.33 Form 54: Cup

Form 54 is a cup with variants (see Fig. 6.30).

Variants 54/A/A/1, 54/B/A/1 and 54/C/A/1

Five sherds of cup Form 54 were recovered, variants sharing a restricted diameter and an everted rim. Complete examples of 54/A/A/1 demonstrate a rounded base and thickened rim, but those of our other variants

have an unknown base profile. The rim of variant 54/B/A/1 is less thick. The earliest examples were recovered from phases I1 and G2.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	20	12	54/A/A/1	18/A/ii
4	A	CXIV	1	25	20	54/B/A/1	18/A/ii
638	G2	LXXIII	1	65	14	54/B/A/1	18/A/iii
263	C	XCV	1	30	20	54/C/A/1	18/A/iii
25	B1	XCVII	1	20	24	54/C/A/1	11/A/ii

6.3.2.34 Form 56: Enclosed bowl or patraya

Form 56 is an enclosed bowl with an incurving shoulder. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *patraya* or alms-bowl

used by monks for collecting alms and eating (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.30).

Variants 56/A/A/1, 56/A/A/2, 56/B/A/1 and 56/B/B/1

Form 56 is an enclosed bowl characterized by Deraniyagala as an 'alms-bowl' due to its similarity to monks' alms bowls. Variant 56/A/A/1 has a slightly thickened rim which is dorsally flat, 56/A/A/2 is dorsally flattened and almost beaked, 56/B/A/1 has a rounded lip

and bulging belly and 56/B/B/1 has a less bulging belly. Variants 56/A/A/1 and 56/B/A/1 are the oldest, appearing in period K, while 56/A/A/2 and 56/B/B/1 were found at the beginning of period I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	75	28	56/A/A/1	18/B/ii
25	B1	XCVII	1	20	18	56/A/A/1	18/A/ii
5	B5	CXII	1	1.4	20	56/A/A/1	16/A/1
5	B5	CXII	1	1.7	20	56/A/A/1	16/A/1
729	I8	LIII	3	90	30	56/A/A/1	18/A/iii
1485	J2	XV	1	20	16	56/A/A/1	16/B/ii
1208	J5	XXI	1	35	20	56/A/A/1	18/A/iii
1616	K3	VIII	1	5	16	56/A/A/1	16/B/iii
1617	K3	X	1	15	10	56/A/A/1	16/B/iii
1617	K3	X	1	10	10	56/A/A/1	18/A/iii
1144	I1	XXIV	2	20	22	56/A/A/2	16/B/ii
4	A	CXIV	1	30	20	56/B/A/1	17/B/ii
1483	J3	XVII	1	10	13	56/B/A/1	16/B/ii
1616	K3	VIII	1	10	12	56/B/A/1	16/B/ii
1616	K3	VIII	1	30	12	56/B/A/1	16/B/iii
1616	K3	VIII	2	20	10, 14	56/B/A/1	16/B/iii
1101	I2	XXVI	1	30	10	56/B/B/1	16/B/ii

Variant 56/C/A/1

Form 56 is an enclosed bowl characterized by Deraniyagala as an 'alms-bowl' due to its similarity to monks' alms bowls. Variant 56/C/A/1 has a thickened

rim and bulging belly. Although it is present in periods F, G, I and J in low numbers, the concentration in period C, D & E suggests a more recent popularity.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	20	20	56/C/A/1	11/A/ii
4	A	CXIV	1	2.5	20	56/C/A/1	16/A/1
4	A	CXIV	1	30	20	56/C/A/1	17/B/ii
4	A	CXIV	1	20	20	56/C/A/1	18/A/iii
41	B2	C	1	1.8	20	56/C/A/1	16/A/1
41	B2	C	1	2.3	20	56/C/A/1	16/A/i
37	B2	CI	1	4.3	19	56/C/A/1	16/A/i
26	B3	CIV	1	2.5	20	56/C/A/1	16/A/1
9	B4	CVI	1	3.7	21	56/C/A/1	16/A/1
9	B4	CVI	1	3.9	19	56/C/A/1	16/A/i
80	D	XCV	1	2.1	20	56/C/A/1	16/A/1
100	D	XCV	1	1	19	56/C/A/1	16/A/1
56	D	XCV	1	9.4	20	56/C/A/1	16/A/1
600	D	XCV	1	1	18	56/C/A/1	16/A/1
87	D	XCV	1	2.5	21	56/C/A/1	16/A/1
324	D	XCV	1	1.9	20	56/C/A/1	16/A/1
286	D	XCV	1	2.3	20	56/C/A/1	16/A/1
313	D	XCV	1	2.5	18	56/C/A/1	16/A/1
332	D	XCV	1	2.2	19	56/C/A/1	16/A/1
256	D	XCV	1	3	17	56/C/A/1	16/A/1
273	D	XCV	1	3.3	22	56/C/A/1	16/A/1
87	D	XCV	1	5.8	21	56/C/A/1	16/A/1
123	D	XCV	1	4.7	21	56/C/A/1	16/A/1
271	D	XCV	1	2.9	20	56/C/A/1	16/A/1

Anuradhapura: The Artefacts

123	D	XCV	1	4.2	20	56/C/A/1	16/A/1
168	D	XCV	1	17.3	20	56/C/A/1	16/A/1
168	D	XCV	1	16.1	20.5	56/C/A/1	16/A/1
107	D	XCV	1	27.5	20	56/C/A/1	16/A/1
123	D	XCV	1	55.4	22	56/C/A/1	16/A/1
313	D	XCV	1	12	21	56/C/A/1	16/A/1
365	F	XCII	1	7.7	20	56/C/A/1	16/A/1
73	F	XCII	1	4.7	21	56/C/A/1	16/A/1
73	F	XCII	1	9.8	20	56/C/A/1	16/A/1
374	F	XCIII	1	2.6	20	56/C/A/1	16/A/1
306	F	XCIII	1	0.8	21	56/C/A/1	16/A/1
345	F	XCIII	1	1.4	20	56/C/A/1	16/A/1
643	G2	LXXII	1	3.8	20	56/C/A/1	16/A/1
386	G5	XCI	1	3.3	20	56/C/A/1	16/A/1
437	G5	LXXXVII	1	11.7	19	56/C/A/1	16/A/1
977	I3	XXVIII	1	25.5	16	56/C/A/1	16/A/1
714	I8	LIV	1	3.3	21	56/C/A/1	16/A/1
1491	J2	XV	1	20	34	56/C/A/1	16/B/i

Variant 56/E/A/1

Form 56 is an enclosed bowl characterized by Deraniyagala as an 'alms-bowl' due to its similarity to monks' alms bowls. Variant 56/E/A/1 has a beaked

inward rim and bulging belly. With the exception of one sherd in period I, this form has a relatively late concentration.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	10	14	56/E/A/1	11/A/ii
4	A	CXIV	1	10	18	56/E/A/1	18/A/ii
192	D	XCV	2	25	28	56/E/A/1	18/A/i
197	D	XCV	1	50	16	56/E/A/1	18/A/iii
1125	I1	XXIII	5	135	26	56/E/A/1	16/B/v

6.3.2.35 Form 59: Rimmed bowl or *mati-koppe/atili*

Form 59 is a rimmed bowl whose mouth is wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *atili*, which is used for cooking curries (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169).

However, he has also noted similarities with the *mati-koppe*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.31).

Variant 59/A/A/1

59/A/A/1 is a rimmed bowl or open cooking pot and has an in-turned rim. It has only been encountered in periods I and J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1125	I1	XXIII	1	30	22	59/A/A/1	17/B/i
1406	J2	XV	3	100	32	59/A/A/1	16/B/i
1496	J3	XII	1	20	26	59/A/A/1	18/A/iii

6.3.2.36 Form 60: Rimmed bowl or *mati-koppe/hali*

Form 60 is a rimmed bowl with a mouth wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167).

However, he has also noted similarities with the *hali*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.31).

Variants 60/B/A/1 and 60/B/B/2

Variant 60/B/A/1 has a folded-over rim with elongated, rounded lip and a groove in the middle of its rim's exterior. This form has been recovered from period I.

Variant 60/B/B/2 is similar but has the groove towards the bottom of the rim. This variant appears in periods K and J and the first phase of I.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
961	I4	XXX	1	30	20	60/B/A/1	18/A/iii
1125	I1	XXIII	1	25	16	60/B/B/2	18/A/iii
1290	J4	XIX	1	10	18	60/B/B/2	18/A/iii
1616	K3	VIII	1	10	16	60/B/B/2	18/A/iii

6.3.2.37 Form 61: Rimmed bowl or mati-koppe/mutti

Form 61 is a rimmed bowl with a mouth wider than its belly. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167).

However, he has also noted similarities with the *mutti*, which is used for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170) (Fig. 6.31).

Variant 61/E/A/2

Variant 61/E/A/2 has an externally folded-over, elongated rim with groove in its mid-exterior. It has only been identified in period J.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1175	J4	XVIII	1	15	14	61/E/A/2	18/A/iii
1172	J5	XXII	1	55	20	61/E/A/2	18/B/ii

6.3.2.38 Form 62: Bases**Variant 62/B/A/1: Base of dish or tali**

62/B/A/1 is the base of a flat dish with low walls. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *tali*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167). This variant

belongs to a flat-based tray and is grooved externally. A single example of this variant was recovered from period C, D & E, providing a fairly late date for its context (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
226	D	XCV	1	20	10	62/B/A/1	18/A/iii

Variant 62/B/B/1: Base of bowl or koppe/mutti

Variant 62/B/B/1 is the base of a bowl. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167). However, he has also noted similarities with the *mutti*, which is used

for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170). This base variant is characterized by a flat base with noticeably thickened walls. With the exception of a single sherd in period A, it is only distributed within the last phase of J and through much of period I (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	40	8	62/B/B/1	18/A/ii
1101	I2	XXVI	1	30	8	62/B/B/1	18/A/iii
977	I3	XXVIII	2	120	6	62/B/B/1	16/B/ii
1119	I3	XXIX	1	55	4	62/B/B/1	18/A/iii
977	I3	XXVIII	1	40	4	62/B/B/1	18/B/ii
850	I6	XL	1	70	12	62/B/B/1	18/B/ii
1172	J5	XXII	1	20	4	62/B/B/1	16/B/iii
1172	J5	XXII	1	60	6	62/B/B/1	16/B/iv

Variant 62/B/C/1: Base of bowl or *koppe/mutti*

Variant 62/B/C/1 is the base of a bowl. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167). However, he has also noted similarities with the *mutti*, which is used

for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170). This variant belongs to a bowl or storage vessel, is of medium thickness and, with the exception of two sherds from the uppermost levels of the site, was restricted to period I (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	25	4	62/B/C/1	18/A/iii
26	B3	CIV	1	95	6	62/B/C/1	18/A/iii
1125	I1	XXIII	2	75	40	62/B/C/1	16/B/i
1125	I1	XXIII	4	75	4	62/B/C/1	16/B/iii
1125	I1	XXIII	1	15	3	62/B/C/1	16/B/iii
1125	I1	XXIII	1	70	6	62/B/C/1	18/A/iii
1125	I1	XXIII	2	60	4	62/B/C/1	18/A/iii
1101	I2	XXVI	1	10	5	62/B/C/1	16/B/i
1119	I3	XXIX	1	15	3	62/B/C/1	16/B/iii
831	I6	XXXIX	1	70	8	62/B/C/1	16/B/iii
834	I6	XXXVII	1	45	6	62/B/C/1	18/A/iii
850	I6	XL	1	50	4	62/B/C/1	18/A/iii
837	I7	XXXV	1	20	4	62/B/C/1	16/B/iii
768	I8	LX	1	35	4	62/B/C/1	16/B/iii
729	I8	LIII	1	30	4	62/B/C/1	18/A/iii

Variant 62/C/A/1: Base of bowl or *koppe/mutti*

Variant 62/C/A/1 is the base of a bowl. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *mati-koppe*, which is used as tableware (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 167). However, he has also noted similarities with the *mutti*, which is used

for both cooking and storage (Deraniyagala, pers. comm.; Gunasekera, Prematilleke and Silva 1971: 169, 170). Four sherds were recovered, one from period I, two from period F and one, possibly redeposited, from period B. It belongs to a relatively narrow-footed bowl and its flat foot is moderately thickened (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
25	B1	XCVII	1	45	4	62/C/A/1	18/A/iii
367	F	XCII	1	35	4	62/C/A/1	18/A/iii
170	F	XCIII	1	35	4	62/C/A/1	18/B/i
1098	I4	XXXI	1	20	4	62/C/A/1	18/A/iii

Variant 62/D/A/1: Base of unidentified vessel

This form is characterized by a relatively narrow, thick and flat foot. Its presence within the uppermost periods

of the site indicates an appearance well within the Historic era (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	70	6	62/D/A/1	18/B/ii
4	A	CXIV	1	65	5	62/D/A/1	18/B/i
4	A	CXIV	1	50	5	62/D/A/1	18/B/i
51	B1	XCIX	2	165	5	62/D/A/1	18/B/ii
158	D	XCV	2	100	14	62/D/A/1	18/B/ii
197	D	XCV	1	40	4	62/D/A/1	18/B/i
256	D	XCV	1	45	4	62/D/A/1	18/B/ii

Form 62/D/A/2: Base of unidentified vessel

This narrow foot is concave and thick, and rounded externally. It was recovered from modern levels (Fig. 6.31).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	210	8	62/D/A/2	18/B/ii

6.3.2.39 Form 65: Long-footed lid with a low dome or mudiya

Variants 65/A/A/1, 65/B/A/1 and 65/B/B/1

A total of 125 examples of Form 65, a long-footed lid with a low dome, were recovered, weighing 3,830 g. The majority of these examples belong to variants 65/B/A/1 with only nine sherds belonging to other variants. Its earliest appearance is in phase K3 and it has a clear increase in numbers during period I. As this dominant

variety is found between periods K and A, with few clear concentrations within, chronological differentiation is more likely from the less numerous other variants. For example, variant 65/A/A/1 has been recovered only from period G and variant 65/B/B/1 with overhanging flange only from period I (Fig. 6.32).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
629	G2	LXXIII	1	65	12	65/A/A/1	18/A/ii
630	G3	LXXVI	1	15	12	65/A/A/1	18/A/iii
632	G4	LXXXIII	1	15	10	65/A/A/1	18/A/iii
632	G4	LXXXIII	1	5	10	65/A/A/1	18/A/iii
4	A	CXIV	5	105	20	65/B/A/1	18/A/iii
4	A	CXIV	1	70	20	65/B/A/1	18/A/iii
4	A	CXIV	2	35	20	65/B/A/1	18/A/iii
4	A	CXIV	3	80	18	65/B/A/1	18/A/iii
4	A	CXIV	1	50	24	65/B/A/1	18/A/iii
4	A	CXIV	6	160	22	65/B/A/1	18/A/iii
4	A	CXIV	1	65	24	65/B/A/1	18/A/iii
4	A	CXIV	2	55	20	65/B/A/1	18/A/iii
4	A	CXIV	1	30	22	65/B/A/1	18/A/iii
4	A	CXIV	1	105	24	65/B/A/1	18/B/i
3	A1	CXV	3	70	22	65/B/A/1	18/A/iii
1	A2	CXVIII	1	15	18	65/B/A/1	18/A/iii
25	B1	XCVII	4	90	24	65/B/A/1	18/A/iii
25	B1	XCVII	1	30	20	65/B/A/1	18/A/iii
24	B2	C	1	80	22	65/B/A/1	18/A/iii
24	B2	C	1	50	22	65/B/A/1	18/A/iii
9	B4	CVI	2	85	18	65/B/A/1	18/A/iii
9	B4	CVI	1	10	24	65/B/A/1	18/A/iii
190	D	XCV	1	25	18	65/B/A/1	18/A/iii
192	D	XCV	1	40	20	65/B/A/1	18/A/iii
299	D	XCV	1	40	22	65/B/A/1	18/A/iii
256	D	XCV	1	55	24	65/B/A/1	18/A/iii
269	D	XCV	1	30	26	65/B/A/1	18/A/iii
364	F	XCII	4	120	22	65/B/A/1	18/A/iii
365	F	XCII	1	40	22	65/B/A/1	18/A/iii
366	F	XCII	2	60	22	65/B/A/1	18/A/iii
367	F	XCII	1	10	18	65/B/A/1	18/A/iii
364	F	XCII	4	195	26	65/B/A/1	18/A/iii
194	F	XCIII	4	120	20	65/B/A/1	18/A/iii
203	F	XCIII	1	25	28	65/B/A/1	18/A/iii
358	F	XCIII	2	40	26	65/B/A/1	18/A/iii
634	G2	LXIX	3	55	26	65/B/A/1	18/A/iii
634	G2	LXIX	4	80	28	65/B/A/1	18/A/iii
634	G2	LXIX	1	20	20	65/B/A/1	18/A/iii
634	G2	LXIX	1	10	22	65/B/A/1	18/A/iii
616	G2	LXX	1	25	20	65/B/A/1	18/A/iii
616	G2	LXX	2	45	20	65/B/A/1	18/A/iii

628	G2	LXXIII	3	45	22	65/B/A/1	18/A/iii
632	G4	LXXXIII	7	200	24	65/B/A/1	18/A/iii
632	G4	LXXXIII	7	115	16	65/B/A/1	18/A/iii
727	H	LXIV	1	10	14	65/B/A/1	18/A/ii
1125	I1	XXIII	1	40	26	65/B/A/1	18/A/ii
1125	I1	XXIII	1	25	20	65/B/A/1	18/A/iii
1125	I1	XXIII	1	50	26	65/B/A/1	18/B/iii
1101	I2	XXVI	2	40	24	65/B/A/1	18/A/iii
977	I3	XXVIII	1	40	24	65/B/A/1	18/A/iii
977	I3	XXVIII	1	50	22	65/B/A/1	18/A/iii
1119	I3	XXIX	1	25	22	65/B/A/1	18/A/iii
962	I4	XXX	1	20	20	65/B/A/1	18/A/iii
959	I4	XXXI	1	25	22	65/B/A/1	18/A/iii
964	I4	XXXII	1	40	24	65/B/A/1	18/A/iii
880	I5	XXXIII	1	55	22	65/B/A/1	18/A/iii
880	I5	XXXIII	3	100	28	65/B/A/1	18/A/iii
1206	I6	XXXVI	1	20	10	65/B/A/1	18/A/iii
834	I6	XXXVII	1	30	22	65/B/A/1	18/A/iii
837	I7	XXXV	1	120	24	65/B/A/1	18/A/iii
772	I7	XLII	1	25	20	65/B/A/1	18/A/iii
839	I7	XLIV	1	50	28	65/B/A/1	18/A/iii
788	I8	LIII	1	65	28	65/B/A/1	18/A/iii
1208	J5	XXI	1	30	24	65/B/A/1	18/A/iii
1616	K3	VIII	1	15	32	65/B/A/1	18/A/iii
1101	I2	XXVI	3	85	22	65/B/A/1	18/A/iii
1101	I2	XXVI	1	45	22	65/B/A/1	18/A/iii
977	I3	XXVIII	1	30	26	65/B/B/1	18/A/iii
977	I3	XXVIII	1	40	20	65/B/B/1	18/B/ii
788	I8	LIII	1	75	26	65/B/B/1	18/A/ii

6.3.2.40 Form 66: Short-footed lid with a low dome or mudiya

Variants 66/A/A/1, 66/B/A/1, 66/C/A/2 and 66/D/A/1

A total of 23 examples of Form 66, lids with a short foot, were recovered during the excavations at trench ASW2. Of these examples the dominant variant was 66/B/A/1, a medium to large size lid with low dome, restricted to

periods F to A. The earliest variant of 66, 66/C/A/2, was recovered from phase II and has a narrower short foot (Fig. 6.32).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
292	D	XCV	1	25	12	66/A/A/1	18/A/iii
4	A	CXIV	1	30	26	66/B/A/1	18/A/ii
4	A	CXIV	1	25	20	66/B/A/1	18/A/iii
4	A	CXIV	1	15	26	66/B/A/1	18/A/iii
4	A	CXIV	1	55	26	66/B/A/1	18/A/iii
4	A	CXIV	1	20	24	66/B/A/1	18/A/iii
4	A	CXIV	1	35	26	66/B/A/1	18/A/iii
3	A1	CXV	3	130	24	66/B/A/1	18/A/iii
1	A2	CXVIII	1	35	22	66/B/A/1	18/A/iii
27	B2	C	2	105	24	66/B/A/1	18/A/ii
9	B4	CVI	1	20	18	66/B/A/1	18/A/ii
325	D	XCV	1	45	28	66/B/A/1	18/A/ii
156	D	XCV	1	15	18	66/B/A/1	18/A/iii
158	D	XCV	1	15	18	66/B/A/1	18/A/iii
325	D	XCV	1	50	28	66/B/A/1	18/A/iii
254	D	XCV	1	20	14	66/B/A/1	18/A/iii
256	D	XCV	1	20	24	66/B/A/1	18/A/iii

367	F	XCII	1	35	24	66/B/A/1	18/A/ii
1125	I1	XXIII	1	10	16	66/C/A/2	18/A/iii
4	A	CXIV	1	20	18	66/D/A/1	18/A/iii

6.3.2.41 Form 67: Footless lid with basal rim folded inwards or mudiya

Variants 67/A/A/3 and 67/A/A/1

Form 67 is a vessel lid without a foot and with the basal rim folded inwards. Its four examples are distributed between phase J4 and I4 and its earlier variant

(67/A/A/3) has a straighter profile than the dome of the later variant (67/A/A/1) (Fig. 6.32).

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
1215	J4	XIX	1	20	14	67/A/A/3	18/A/iii
1172	J5	XXII	1	65	18	67/A/A/3	18/A/iii
1101	I2	XXVI	1	25	30	67/A/A/1	18/A/ii
962	I4	XXX	1	15	14	67/A/A/1	16/B/iii

6.3.2.42 Form 72: Portable stoves or lipa

Form 72 is a wide-mouthed portable stove. Deraniyagala has noted similarities between its form and that of the traditional Sri Lankan *lipa* (Deraniyagala, pers. comm.;

Gunasekera, Prematilleke and Silva 1971: 169, 167) (Fig. 6.33).

Variants 72/A/A/2 and 72/A/A/3

Form 72 represents a wide-mouthed portable stove with two variants, the first (72/A/A/2) with external grooves and the second (72/A/A/3) with internal knobs for balancing cooking vessels. Six examples of this form,

weighing a total of 1,200 g, were recovered from trench ASW2: one from period F, four from period C, D & E and one from period A. They represent a relatively late phenomenon at ASW2.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	110	28	72/A/A/2	18/B/ii
263	C	XCV	2	475		72/A/A/3	18/B/ii
212	D	XCV	1	185	20	72/A/A/3	18/B/ii
325	D	XCV	1	240	24	72/A/A/3	18/B/ii
264	F	XCIII	1	190	12	72/A/A/2	18/B/ii

6.3.2.43 Forms 73 and 74: Architectural pinnacles

Forms 73 and 74 are circular clay tubes. Deraniyagala has noted similarities between their form and that of

traditional roof pinnacles, or perhaps even pedestal lamp stems (Deraniyagala, pers. comm.) (Fig. 6.33).

Variants 74/C/A/1, 73/B/A/1 and 74/A/B/1

Forms 73 and 74 have been interpreted as roof pinnacles, protecting wooden roof posts from the elements. Both have a distinct carination and Form 73 still preserves a curving form above. Eight examples were recovered from the timber post structures of period I, including two

from phase I4, a phase associated with the collapse of much of a tiled roof, strengthening the identification of its function. Largely restricted to period I, the two examples recovered from A and B are probably redeposited.

CONTEXT	PERIOD	PHASE	NO	WGT g	DIAMcm	FORM	WARE
4	A	CXIV	1	50	10	74/C/A/1	18/B/ii
9	B4	CVI	1	110	24	74/C/A/1	18/A/iii
977	I3	XXVIII	2	295	14	74/C/A/1	18/B/ii
885	I4	XXXII	1	25	16	73/B/A/1	16/B/iii
885	I4	XXXII	1	50	16	74/C/A/1	18/B/ii
880	I5	XXXIII	1	25	8	74/C/A/1	18/A/iii
831	I6	XXXIX	1	20	12	74/A/B/1	16/B/ii
837	I7	XXXV	1	40	14	74/C/A/1	18/A/ii

767	18	LX	1	65	16	74/C/A/1	18/A/ii
788	18	LIII	1	25	16	74/C/A/1	18/A/iii

6.4 Ceramic and clay objects

A total of 71 ceramic beads and 2 bangles have been discovered, ranging from period I4 to B2, a time span dating from c. 360 cal. BC to AD 1100. A variety of shapes have been identified, including disc, spherical disc, sphere, bangle, hexagonal tube, barrel, shaped blank, one chip and one unfinished, and altogether they weigh 58.56 g. The disc shape has 29 beads ranging from periods D to G with the majority in period G, thus dating from c. 200 cal. BC to AD 1100. Thirty-three beads are represented by a spherical bead shape covering periods A to F with the majority in period D. The sphere shape has four beads and is present in periods F and I only, extending the chronology to c. 360 cal. BC. The hexagonal tube shape is present in period G, while the barrel shape, the shaped blank, chip and unfinished beads are all from period D. However, period D is fill from a robber pit, which indicates that the material originated

from other levels. Two bangles have also been found and are present in periods B and F. Therefore, altogether the dominant period is F, which contains 21 beads and bangles with a weight of 4.52 g. A clay object, sf 1786, was recovered from the mixed layers of period XCV (see section 6.4.10 below). It is a circular disc with a diameter of 3.1 cm and a thickness of 1.7 cm. Its cross-section indicates a concave profile and its upper surface is decorated with a dotted circle on its edge and a star or cross design at the centre. Raymond Allchin considered this piece to be similar to the ringstones which are frequently found on Early Historic sites in North India and Pakistan (pers. comm.) (Allchin 1995: 265). There are also similarities between this object and the larger discs identified as stamps for stamping pottery and textiles at Taxila (Marshall 1951: 437).

6.4.1 Disc

Special find no: 1162 Context: 25NE Weight: 0.07g Description: disc	Period: B1 Phase: XCVII	Special find no: 1161 Context: 25NE Weight: 0.11g Description: disc	Period: B1 Phase: XCVII
Special find no: 1174 Context: 25NE Weight: 0.07g Description: disc	Period: B1 Phase: XCVII	Special find no: 1179 Context: 25NE Weight: 0.2g Description: disc	Period: B1 Phase: XCVII
Special find no: 999 Context: 41SW Weight: 0.21g Description: disc	Period: B2 Phase: C	Special find no: 1035 Context: 41SW Weight: 0.08g Description: disc	Period: B2 Phase: C
Special find no: 1008 Context: 41SW Weight: 0.1g Description: disc	Period: B2 Phase: C	Special find no: 1009 Context: 41SW Weight: 0.07g Description: disc	Period: B2 Phase: C
Special find no: 1092 Context: 123SE Weight: 0.08g Description: disc	Period: D Phase: XCV	Special find no: 1736 Context: 318SE Weight: 0.18g Description: disc	Period: D Phase: XCV
Special find no: 2305 Context: 325NE Weight: 0.14g Description: disc	Period: D Phase: XCV	Special find no: 1996 Context: 334NE Weight: 0.33g Description: disc	Period: D Phase: XCV
Special find no: 2773 Context: 368NE Weight: 0.04g Description: disc	Period: D Phase: XCV	Special find no: 2429 Context: 373NW Weight: 0.23g Description: disc	Period: D Phase: XCV
Special find no: 2028 Context: 304NE Weight: 0.08g Description: disc	Period: F Phase: XCIII	Special find no: 2097 Context: 306SE Weight: 0.1g Description: disc	Period: F Phase: XCIII
Special find no: 5704 Context: 363NE Weight: 0.13g Description: disc	Period: F Phase: XCIII	Special find no: 2623 Context: 73SW Weight: 0.4g Description: disc	Period: F Phase: XCIII
Special find no: 2734 Context: 365NW Weight: 0.19g	Period: F Phase: XCII	Special find no: 2841 Context: 364NE Weight: 0.06g	Period: F Phase: XCII

Description: disc

Special find no: 2877
Context: 375NW
Weight: 0.19g
Description: disc

Period: G5
Phase: LXXXVIII

Special find no: 5266
Context: 385SE
Weight: 0.15g
Description: disc

Period: G5
Phase: XCI

Special find no: 6187
Context: 385SE
Weight: 0.21g
Description: disc

Period: G5
Phase: XCI

Special find no: 6279
Context: 386NW
Weight: 0.22g
Description: disc

Period: G5
Phase: XCI

Special find no: 6402
Context: 390SE
Weight: 0.29g
Description: disc

Period: G5
Phase: LXXXVI

Description: disc

Special find no: 6183
Context: 376NW
Weight: 0.18g
Description: disc

Period: G5
Phase: LXXXVI

Special find no: 5267
Context: 385SE
Weight: 0.14g
Description: disc

Period: G5
Phase: XCI

Special find no: 6228
Context: 386NE
Weight: 0.33g
Description: disc

Period: G5
Phase: XCI

Special find no: 6400
Context: 404NE
Weight: 0.22g
Description: disc

Period: G5
Phase: XCI

6.4.2 Spherical disc

Special find no: 1388
Context: 79NE
Weight: 0.06g
Description: spherical disc

Period: A1
Phase: CXVII

Special find no: 1135
Context: 87SW
Weight: 0.19g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1094
Context: 123SE
Weight: 0.07g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1096
Context: 123SE
Weight: 0.14g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2423
Context: 274SE
Weight: 0.14g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2996
Context: 294NE
Weight: 0.11g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2301
Context: 325NE
Weight: 0.12g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2312
Context: 325NE
Weight: 0.04g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2320
Context: 325NE
Weight: 0.08g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2343
Context: 325NE
Weight: 0.9g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1134
Context: 87SW
Weight: 0.05g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1093
Context: 123SE
Weight: 0.08g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1095
Context: 123SE
Weight: 0.05g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1101
Context: 123SE
Weight: 0.08g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 1695
Context: 289NE
Weight: 0.05g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2766
Context: 296NE
Weight: 0.1g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2306
Context: 325NE
Weight: 0.03g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2316
Context: 325NE
Weight: 0.04g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2321
Context: 325NE
Weight: 0.03g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2674
Context: 356NE
Weight: 0.06g
Description: spherical disc

Period: D
Phase: XCV

Special find no: 2522 Context: 344NW Weight: 0.19g Description: spherical disc	Period: D Phase: XCV	Special find no: 2691 Context: 369SE Weight: 0.1g Description: spherical disc	Period: F Phase: XCIII
Special find no: 2778 Context: 269SE Weight: 0.11g Description: spherical disc	Period: F Phase: XCIII	Special find no: 2787 Context: 369SE Weight: 0.05g Description: spherical disc	Period: F Phase: XCIII
Special find no: 3067 Context: 370SW Weight: 0.04g Description: spherical disc	Period: F Phase: XCIII	Special find no: 3085 Context: 370SW Weight: 0.06g Description: spherical disc	Period: F Phase: XCIII
Special find no: 2086 Context: 306SE Weight: 0.07g Description: spherical disc	Period: F Phase: XCIII	Special find no: 2544 Context: 345SW Weight: 0.06g Description: spherical disc	Period: F Phase: XCIII
Special find no: 2675 Context: 345SW Weight: 0.23g Description: spherical disc	Period: F Phase: XCIII	Special find no: 2466 Context: 258SE Weight: 0.12g Description: spherical disc	Period: F Phase: XCIII
Special find no: 1116 Context: 73SW Weight: 0.11g Description: spherical disc	Period: F Phase: XCIII	Special find no: 1117 Context: 73SW Weight: 0.04g Description: spherical disc	Period: F Phase: XCIII
Special find no: 2509 Context: ? Weight: 0.01g Description: spherical disc	Period: ? Phase: ?		

6.4.3 Sphere

Special find no: 5662 Context: 365NW Weight: 0.73g Description: sphere	Period: F Phase: XCII	Special find no: 1124 Context: 73SW Weight: 0.03g Description: sphere	Period: F Phase: XCIII
Special find no: 10229 Context: 707SW Weight: 23.09g Description: sphere [Fig. 6.34]	Period: 18 Phase: LIV	Special find no: 17401 Context: 962 Weight: 10.1g Description: sphere	Period: 14 Phase: XXX

6.4.4 Hexagonal tube

Special find no: 6674 Context: 416NE Weight: 12.27g Description: hexagonal tube [Plate 6.4; Fig. 6.34]	Period: G5 Phase: XCI
---	---------------------------------

6.4.5 Barrel

Special find no: 2344 Context: 325NE Weight: 0.12g Description: barrel	Period: D Phase: XCV
--	--------------------------------

6.4.6 Shaped blank

Special find no: 2594 Context: 356NW Weight: 0.25g Description: shaped blank	Period: D Phase: XCV
--	--------------------------------

6.4.7 Chip

Special find no: 1921 Context: 325NE Weight: 0.19g	Period: D Phase: XCV
---	--------------------------------

Description: chip

6.4.8 Unfinished

Special find no: 2588
Context: 356NW
Weight: 0.07g
Description: unfinished

Period: D
Phase: XCV

6.4.9 Bangle

Special find no: 8789
Context: 41SE
Weight: 1.5g
Description: bangle

Period: B2
Phase: C

Special find no: 8550
Context: 73SW
Weight: 1.8g
Description: bangle

Period: F
Phase: XCIII

6.4.10 Reel

Special find no: 1786
Context: 301NE
Diameter: 3.1cm
Weight: 43.21g
Description: Reel or earplug?

Period: XCV
Phase: D
Thickness: 1.7cm

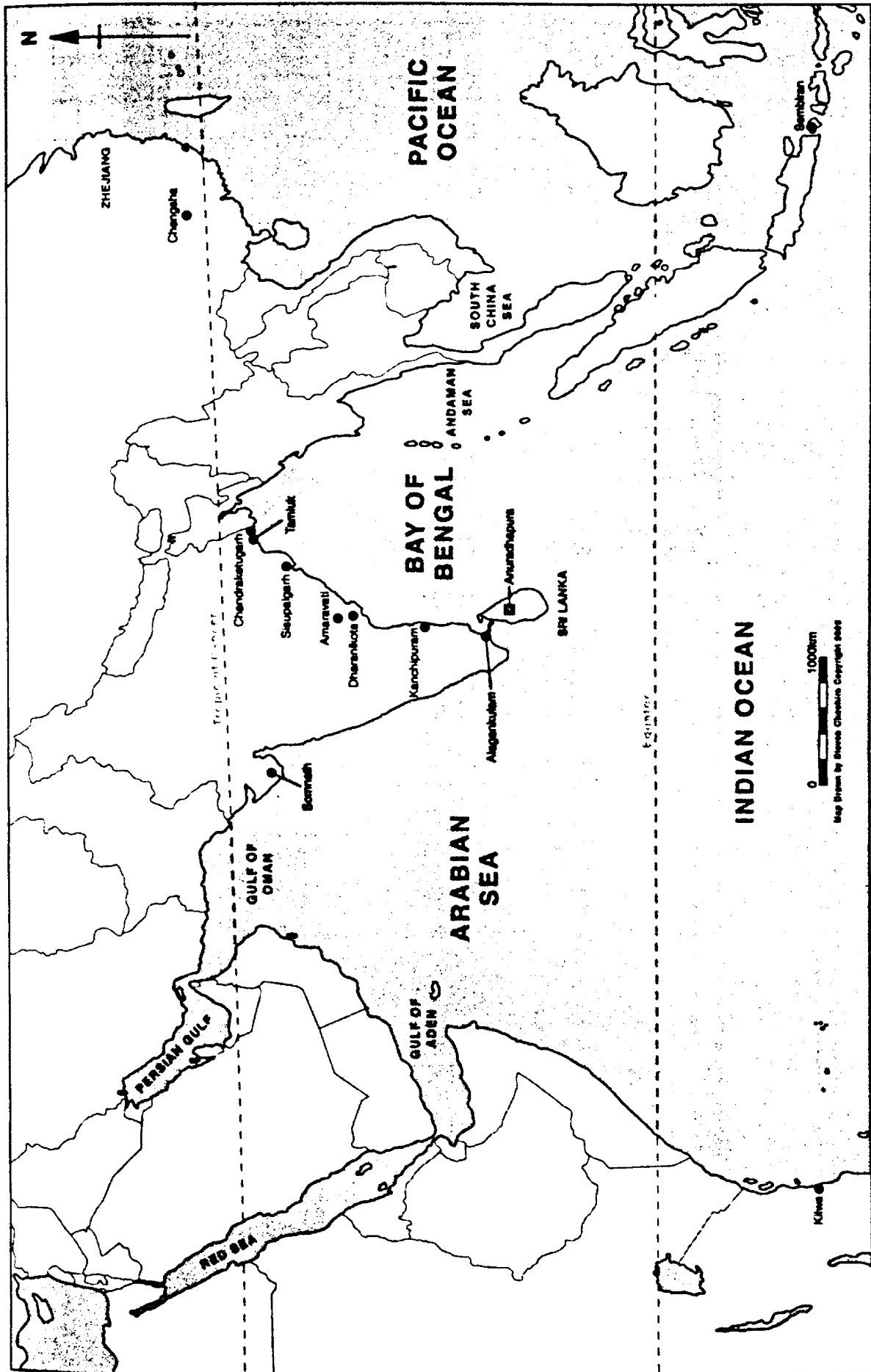
[Plate 6.4; Fig. 6.34]

6.5 Conclusion

The unglazed ceramics represent one of the largest categories of artefacts recovered from the excavations at trench ASW2. We have attempted to analyse their chronological distribution by dividing them into fine and coarse wares and then into recognizable wares and forms. From our tables it is clear that the earliest appearance of ceramics may be utilized to indicate chronological boundaries, however mixing makes their final appearance chronologically less helpful. In terms of general trends, the gradual introduction and collapse of fine wares in the sequence is evident with the first few examples in period J with a noticeable increase in I and a peak in period G and gradual decay (see Table 6.1). This pattern interlocks well with the introduction of glazed ceramics which first appear in tiny quantities in periods F and G but then peak in period C, D & E before reducing in periods B and A (see Table 5.1). Our distributions of fine wares conform to the generally accepted schemes for South India and we have a clear sequence of Grey ware in period J, followed by Rouletted ware and a single fragment of Northern Black Polished ware in period I and then by an explosion of fine ware forms including Arikamedu Type 10, Arikamedu Type 18 and Omphalos ware. While one may be interested in allocating a 'Western' influence to a number of the forms and wares of period G, thin-section analysis and chemical analysis by Ford has proved that these ceramics come from the same source as both Rouletted ware and Grey ware (pers. comm.). Red Polished ware peaks in period C, D & E and is joined by white-slipped sherds with red paint and a distinctive brown ware. In addition to these fine wares, there are a number of coarse ware forms which appear to be very useful chronologically and may be used to date sites without radiocarbon samples or fine wares as demonstrated in section 6.3. For example, Form 72 portable stoves are restricted to periods C, D & E and F, small bowl variant 3/A/A/1 is only found between phases I7 and J5, pot variant 6/I/A/1 is restricted to phases I1, I2, I3 and I4, and *tali* variant 30/A/A/1 is largely

concentrated between periods I and J.

This study is by no means exhaustive and there are a number of themes unexplored here. For example, it is interesting to note that the enclosed bowl form 56, traditionally identified with the Buddhist alms bowl or *patraya*, is only found in periods I, J and K. Perhaps this pattern indicates that this traditional form of eating vessel was adopted by monks and then later became removed from secular arenas? Its absence at ASW2 from periods H to I is in clear contrast to its presence at the Buddhist Jetavanaramaya monastery to the east of the city (Ratnayake 1984). A comparison of the forms from the secular core of Anuradhapura and its satellite monasteries would certainly help us understand the dynamic relationship between the two. Certainly changes are apparent, such as the appearance in the sequence of spouts and sprinklers in periods C, D & E and F, although the social context is not investigated here. Similarly social, economic and even culinary changes may be indicated by the dramatic shift in the percentage of *tali* forms 30 and 31, representing 50 per cent of all coarse ware vessels in period K, 39 per cent in J, 26 per cent in I, 32 per cent in H, 39 per cent in G, 23 per cent in F, 1.3 per cent in C, D & E, 2.7 per cent in B and 3.1 per cent in period A. Finally, it should be noted that new forms from Anuradhapura and Sri Lanka will undoubtedly be forthcoming: for example, a sherd with appliqué *trisula* (sf 248) found at ASW2 does not appear in Deraniyagala's catalogue but is chronologically significant as it was recovered from period C, D & E and has affinities with similar sherds from the site of Polonnaruwa (Coningham 1999: 130) (see Plate 6.5). Similarly, the rounded tile form found in large numbers in the roof collapse of phase I4 is also not present (for example sf 16575: see Plate 6.5; Fig. 6.34). However, the nature of the material presented in this chapter will be placed in a fuller context once Dr Siran Deraniyagala's own ceramic catalogue of his material from the Citadel is published in due course.



Map 11

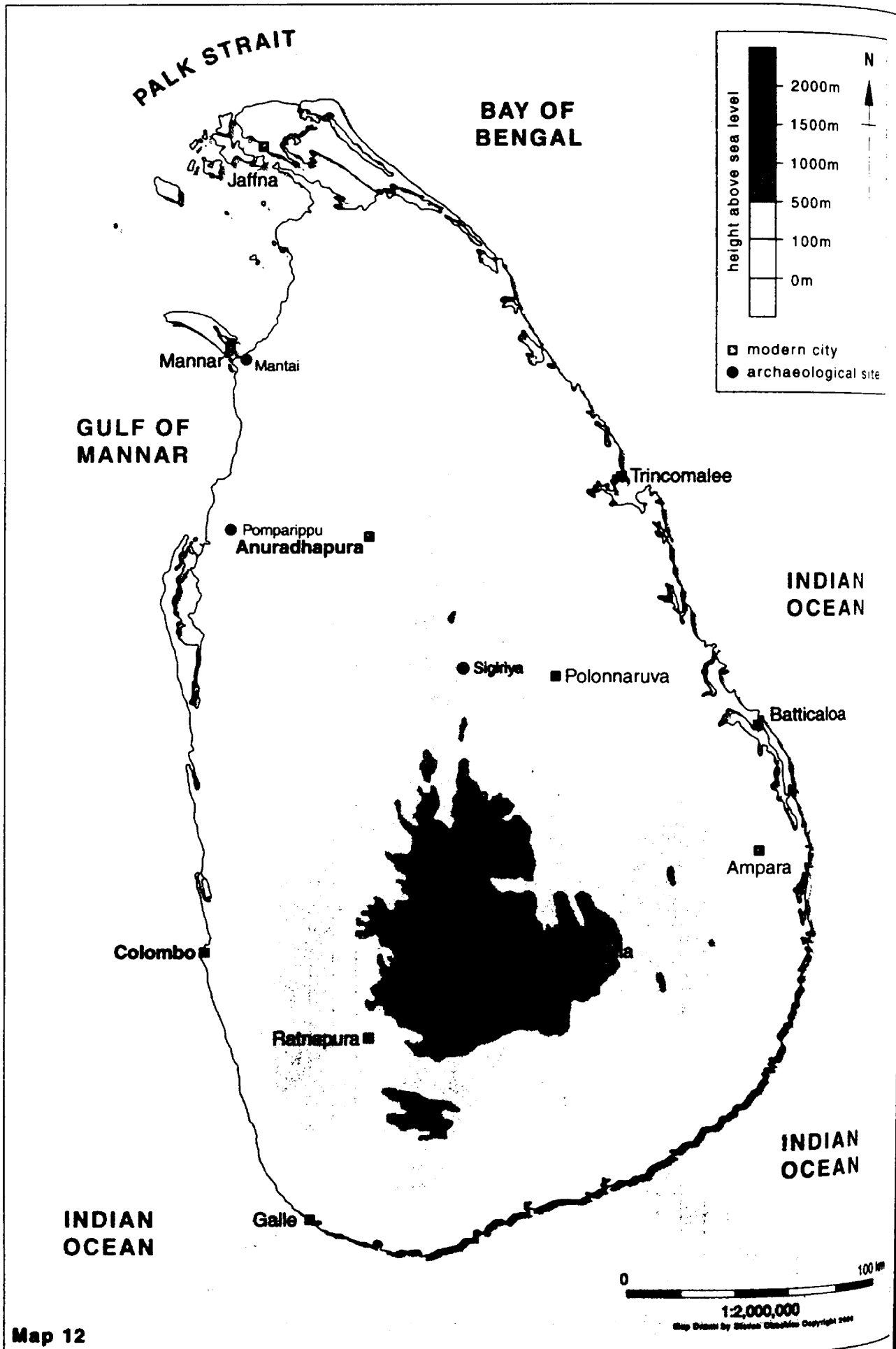


Table 6.1 Fine wares

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Grey ware	weight (g)	16		8	30.8	1041.2	124.1	938.7	16.2		2176
Rouletted ware	weight (g)	133	739.6	1258.9	893.2	3833.91	71.2	54.2			6984.01
Arkamadu 10	weight (g)		11.67	14.54	8.93	183.1					218.24
Arkamadu 18	weight (g)			7		98		2.5			107.5
Northern Black Polished	weight (g)							3			3
Unslipped or pale	weight (g)			7		10		6			23
Additional fine	weight (g)			30.5	10.5	78	1.5	5			125.5
Fine Black	weight (g)			2		142.7	3				147.7
Red Polished	weight (g)	346.6	144.4	829.2	57.5	34.3					1412
Omphalos	weight (g)				9	66					75
Amphora	weight (g)					5					5
White slip & red	weight (g)		12.5	19	6						37.5
paint											
Brown ware	weight (g)		77.6	155.8							233.4
Total	weight (g)	495.6	985.77	2331.94	1015.93	5492.21	199.8	1009.4	16.2		11546.85

Table 6.2 Rouletted ware (Arkamadu Type 1)

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
'Baby' Rouletted	weight (g)		5	12.3	7.6	142.61	3.9	9.3			180.71
Plain rounded rims	weight (g)		11	15.5	39.8	49.4	7.7	4.8			128.2
Undercut rims	weight (g)		18	38.9	80.6	202.2	4.8	5.2			349.7
Beaked rims with no lip	weight (g)		30.5	25.3	70.6	299.5					425.9
Beaked rims with lip	weight (g)	25.4	58	22.3	56.2	261.3		11.7			434.9
Other rim variants	weight (g)			37.4	7	8					52.4
Indistinct rims	weight (g)	70	112	325	165.5	557.2					1229.7
Sherds with external grooves	weight (g)		3.1	3.3	10.9	54.8	5.2				77.3
Sherds with roulettes	weight (g)	5.1	2.6	45.1	151.6	445.3	10.2	10.1			670
Rouletted ware discs	weight (g)		8.5	25.5	13	18.7		0.5			66.2
Body sherds	weight (g)	32.5	490.9	708.3	290.4	1794.9	39.4	12.6			3369
Total	weight (g)	133	739.6	1258.9	893.2	3833.91	71.2	54.2			6984.01

Table 6.3 Coarse ware rims and clay objects

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Coarse ware sherds	number	1472	1137	1900	381	597	28	3638	875	71	10099
	weight (g)	90162.5	85525.6	135422.1	18060	12397.8	710	90325.8	19879	1863	454345.8
Clay beads	number	1	8	30	20	10		2			71
	weight (g)	0.06	1.41	4.18	2.4	14.2		33.19			55.44
Clay bangles	number		1		1						2
	weight (g)		1.5		1.8						3.3
Total	number	1473	1146	1930	402	607	28	3640	875	71	10172
	weight (g)	90162.56	85528.51	135426.2	18064.2	12412	710	90358.99	19879	1863	454404.5

Table 6.4 Coarse ware forms
(first appearance in ASW2 sequence)

Category	Period	A	B	C,D&E	F	G	H	I	J	K
Form 1: Shallow bowl or nambilliya										
1/A/A1								X		
1/B/A1								X		
1/B/A2									X	
1/C/A1									X	
1/D/A1								X		
1/E/A1								X		
1/E/A2						X				
1/E/A3				X						
1/F/A2		X								
1/F/A3		X								
1/G/A1				X						
Form 2: Bowl or still										
2/A/A1								X		
2/A/B1								X		
2/B/A1								X		
2/B/A2					X					
2/D/A1				X						
2/D/B1								X		
2/D/C1		X								
2/D/C2					X					
2/E/A1								X		
2/F/A1								X		
2/F/B1								X		
2/F/C1									X	
2/F/C2										
2/G/A1										X
2/H/A1								X		
2/H/A2								X		
2/N/A1				X						
2/N/A2				X						
2/N/A3				X						
Form 3: Small bowl or still										

Category	Period	A	B	C,D & E	F	G	H	I	J	K
3/A/A/1									X	
3/B/A/1									X	
Form 4: Bowl or still										
4/A/A/1										X
4/A/A/2									X	
4/A/A/3										X
4/B/A/1									X	
4/B/A/2									X	
4/B/A/3									X	
4/C/A/1									X	
4/D/A/1									X	
4/D/B/1									X	
4/E/A/1								X		
4/F/A/1									X	
4/G/A/1								X		
4/H/A/1								X		
4/I/A/1								X		
4/J/A/1										X
Form 6: Pot or hall										
6/B/A/1									X	
6/B/A/2				X						
6/C/A/1								X		
6/C/A/2								X		
6/C/A/3								X		
6/C/A/4									X	
6/D/A/1					X					
6/D/A/2								X		
6/E/A/1									X	
6/F/A/1								X		
6/G/A/1								X		
6/H/A/1									X	
6/I/A/1								X		
6/K/A/1										
6/M/A/1									X	
6/N/A/1									X	
6/N/A/2					X					
6/O/A/1									X	

Category	Period	A	B	C, D & E	F	G	H	I	J	K
8/O/A/2									X	
Form 7: Pot or hall										
7/A/A/1								X		
7/B/A/1								X		
7/B/A/2								X		
Form 8: Pot or hall										
8/A/A/1									X	
8/A/A/2									X	
8/A/B/1								X		
8/B/A/1									X	
8/C/A/1									X	
8/D/A/1										X
8/D/A/2									X	
8/E/A/1									X	
8/E/A/2									X	
8/F/A/1									X	
8/F/A/2									X	
8/G/A/1								X		
8/H/A/1		X						X		
8/J/A/1									X	
8/K/A/1									X	
8/M/A/1										X
8/N/A/1									X	
8/O/A/1									X	
8/O/A/2								X		
Form 10: Jar or mutti										
10/A/A/1								X		
10/B/A/1								X		
10/C/A/1								X		
10/C/A/2								X		
10/C/A/3										
10/D/A/1										
10/D/A/2										X
10/E/A/1								X		
Form 11: Jar or mutti										

Category	Period	A	B	C,D&E	F	G	H	I	J	K
11/A/A/1						X				
11/B/A/1		X								
11/C/A/2		X								
Form 12: Jar or muttl										
12/A/A/1									X	
12/B/A/1										X
12/C/A/1			X							
Form 13: Jar or kale										
13/A/A/1									X	
13/B/A/1										X
13/B/A/2								X		
13/B/A/3								X		
13/B/A/4									X	
Form 14: Jar or muttl										
14/A/A/1										X
14/A/B/1										X
14/A/B/2									X	
14/B/A/1										X
14/C/A/1										X
14/C/B/1									X	
14/D/A/1										X
14/D/A/2									X	
14/E/A/1									X	
14/E/A/2									X	
14/E/B/1								X		
14/F/A/1								X		
14/I/A/1									X	
14/J/A/1									X	
14/M/A/1									X	
14/O/A/1									X	
Form 15: Jar or muttl										
15/A/A/1									X	
15/B/A/1								X		
15/B/A/2								X		
15/D/A/1										X

Category	Period	A	B	C,D&E	F	G	H	I	J	K
16D/B/1								X		
16E/A/1								X		
16F/A/1										X
Form 18: Long-necked jar or mutti/kale										
18A/A/1										
18B/A/1								X		
18C/A/1								X		
18D/A/1								X		
Form 20: Jar or kotale										
20A/A/1		X								
20A/A/2										
20A/B/1								X		
20F/A/1				X						
Form 22: Jar or kotale										
22A/A/2								X		
Form 23: Jar or mutti										
23A/A/1					X					
23A/B/1						X				
23B/A/1				X						
23C/A/1					X					
Form 24: Jar with spout or keml										
24A/A/1										
24B/A/1				X						
24B/A/2				X						
24B/B/1				X						
Form 26: Jar with spout/sprinkler or keml										
26A/A/1				X						
Form 28: Deep dish or tall										
28B/A/1										
28C/A/1			X		X					
Form 29: Deep dish or tall										

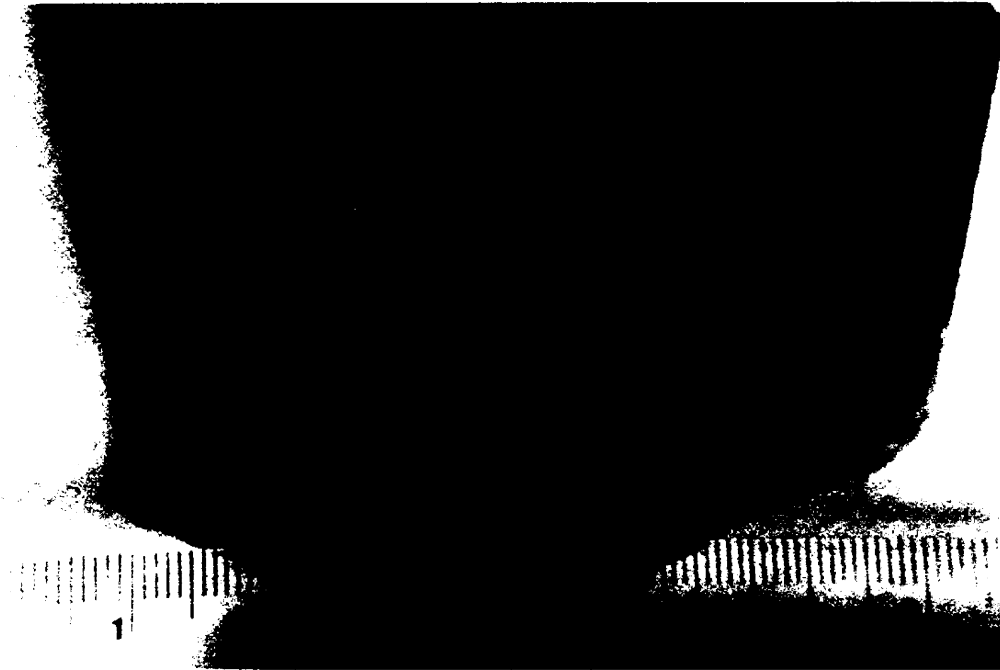
Category	Period	A	B	C, D & E	F	G	H	I	J	K
29/A/A/1									X	
29/A/A/2									X	
29/A/B/1									X	
Form 30: Dish or tall										
30/A/A/1										X
30/A/A/2										X
30/A/A/3									X	
30/A/A/6								X		
30/A/B/1							X		X	
30/A/B/2							X			
Form 31: Dish or tall										
31/A/A/1										X
31/A/A/2									X	
31/A/A/4									X	
31/A/B/1									X	
31/A/D/1					X					
31/A/E/1								X		
Form 36: Shallow bowl										
36/A/A/1									X	
36/A/A/4								X		
36/A/B/1								X		
Form 37: Medium-shallow bowl										
37/A/A/1									X	
Form 38: Deep bowl										
38/A/A/1										X
38/A/A/2									X	
38/A/A/3									X	
38/A/B/1										X
38/A/C/1								X		
Form 40: Deep bowl										
40/A/A/1									X	
Form 44: Flat bowl or tall										

Category	Period	A	B	C, D & E	F	G	H	I	J	K
44/C/A/1				X				X		
44/E/A/1								X		
44/F/A/1								X		
44/G/A/1								X		
Form 47: Shallow bowl										
47/C/A/1								X		
Form 48: Wide bowl or mat-koppe										
48/A/A/1									X	
48/C/A/1									X	
Form 51: Lamp or pahan										
51/A/A/1								X		
Form 53: Rimmed bowl or mat-koppe										
53/A/A/2									X	
Form 54: Cup										
54/A/A/1								X		
54/B/A/1						X				
54/C/A/1			X							
Form 56: Enclosed bowl or patraya										
56/A/A/1										X
56/A/A/2								X		
56/B/A/1										X
56/B/B/1								X		
56/C/A/1								X	X	
56/E/A/1										
Form 59: Rimmed bowl or mat-koppe/adill										
59/A/A/1									X	
Form 60: Rimmed bowl or mat-koppe/adill										
60/B/A/1								X		
60/B/B/2										X
Form 61: Rimmed bowl or mat-koppe/mutti										

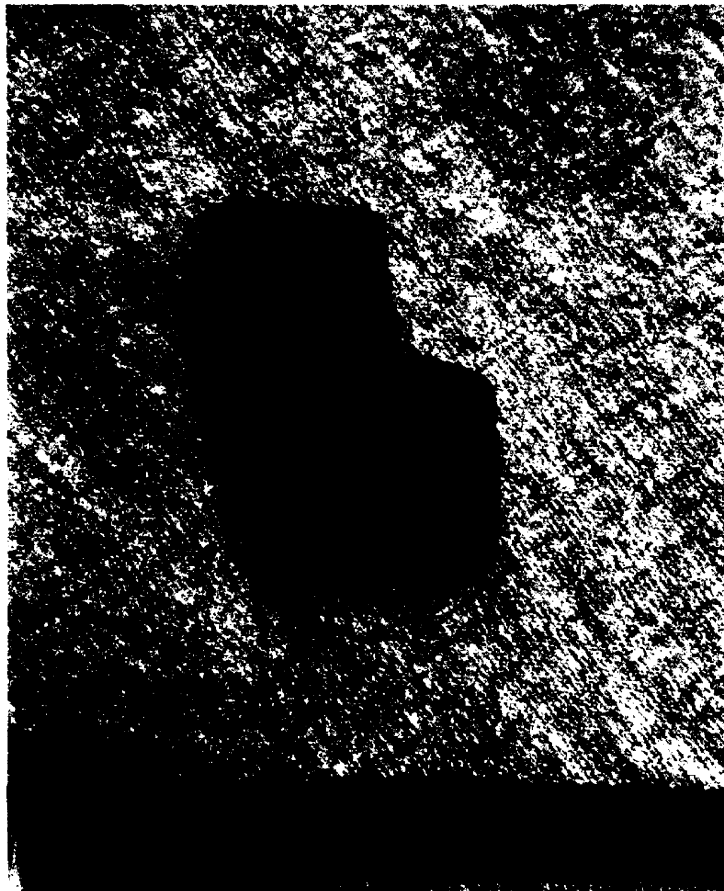
Category	Period	A	B	C,D & E	F	G	H	I	J	K
61/E/A/2									X	
Form 62: Bases										
62/B/A/1				X						
62/B/B/1									X	
62/B/C/1								X		
62/C/A/1								X		
62/D/A/1				X						
62/D/A/2		X								
Form 65: Long-footed lid with low dome										
65/A/A/1						X				
65/B/A/1										X
65/B/B/2								X		
Form 66: Short-footed lid with low dome										
66/A/A/1				X						
66/B/A/1					X					
66/C/A/2								X		
66/D/A/1		X								
Form 67: Footless lid with a basal rim folded Inwards										
67/A/A/3									X	
67/A/A/1								X		
Form 72: Portable stove or lipa										
72/A/A/2					X					
72/A/A/3				X						
Forms 73 & 74: Architectural pinnacles										
73/B/A/1								X		
74/A/B/1								X		
74/C/A/1								X		

Table 6.5 Coarse ware categories

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
16/A/I	weight (g)	2.5	21.6	177.1	27	18.8		423.8			670.8
16/B/I	weight (g)	205						145	15		365
16/B/II	weight (g)	145	510	200	1654	4834	185	25354	6665	120	39667
16/B/III	weight (g)	100	385	45	205	390	85	4545	2929	1050	9734
16/B/IV	weight (g)	85	225		235	65		860	145	65	1680
17/B/I	weight (g)	85	15					130	180		410
17/B/III	weight (g)		5			20		10			35
17/B/IV	weight (g)								5		5
18/A/I	weight (g)	645									645
18/A/II	weight (g)	7715	8450	14084	2080	1385	215	9945	2865	55	46794
18/A/III	weight (g)	34110	29720	35561	7184	4615	225	28169	5030	503	145117
18/B/I	weight (g)	3805	1315	6322	610	340		4800	1200		18392
18/B/II	weight (g)	43265	44879	79033	6065	730		15944	845	70	190831
Total	weight (g)	90162.5	85525.6	135422.1	18060	12397.8	710	90325.8	19879	1863	454345.8

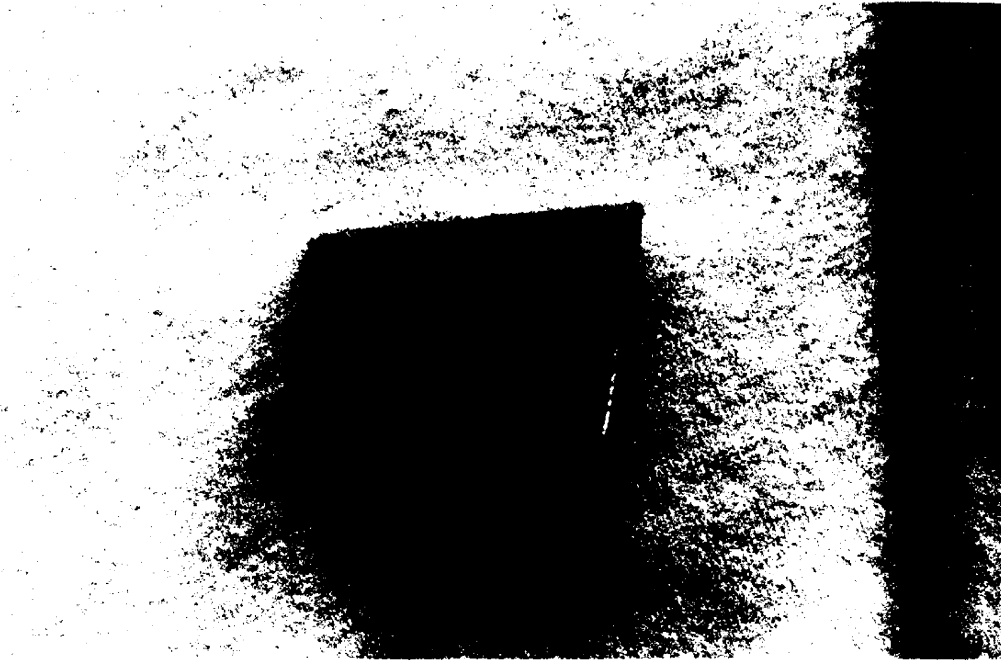


Rouletted ware body sherd with rouletting (sf 6868)

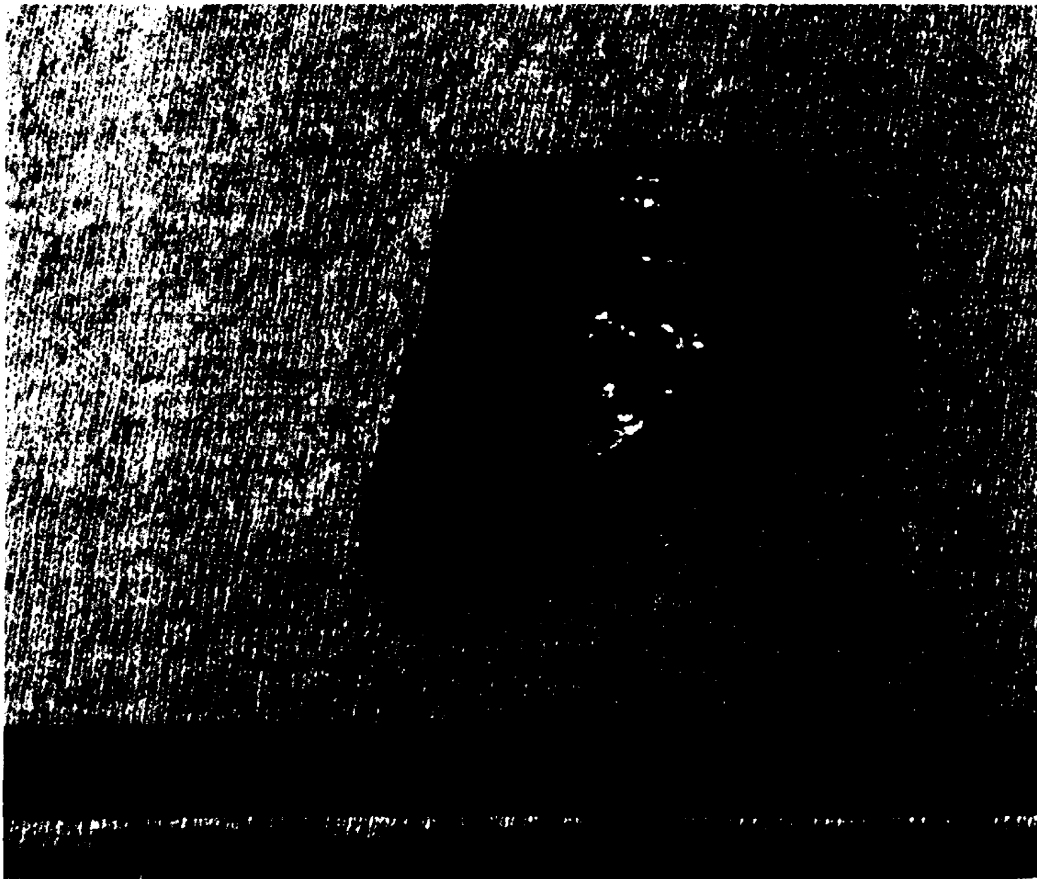


Arikamedu Type 10 rim with stamp (sf 6520)

Plate 6.1: Fine ware sherds

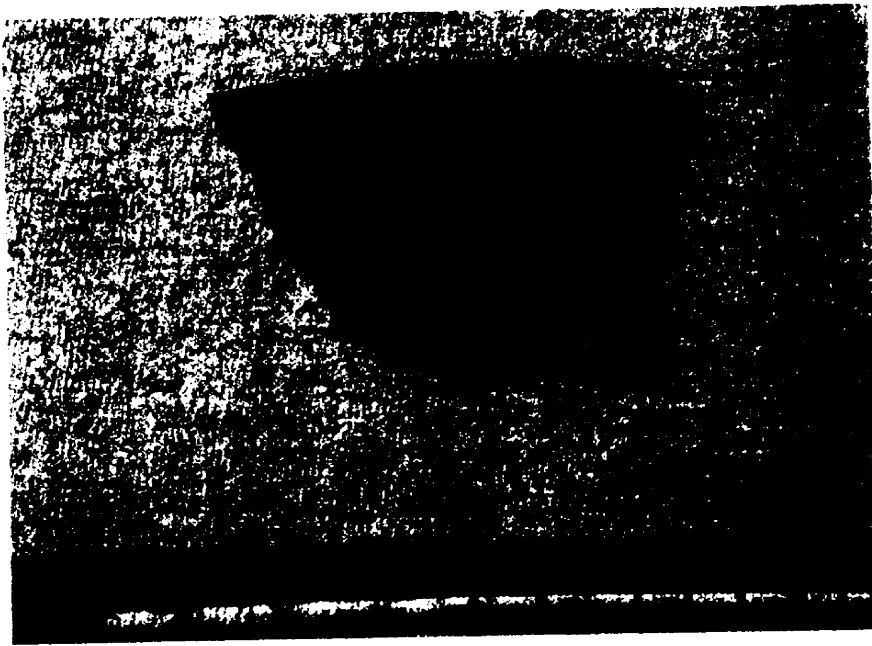


Arikamedu Type 10 rim (sf 7051)

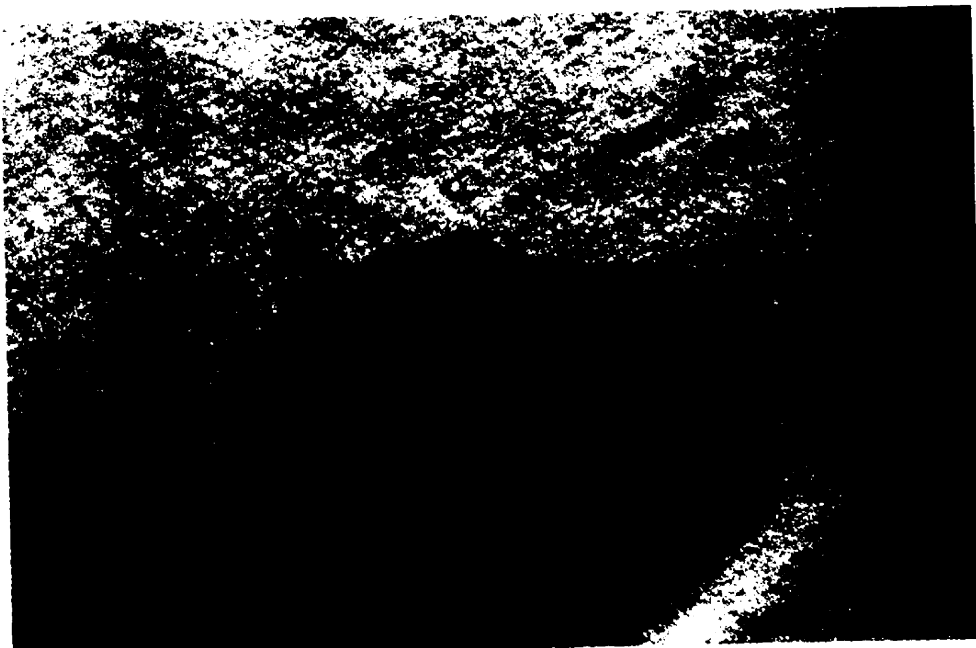


Arikamedu Type 10 rim (sf 15514)

Plate 6.2: Fine ware sherds

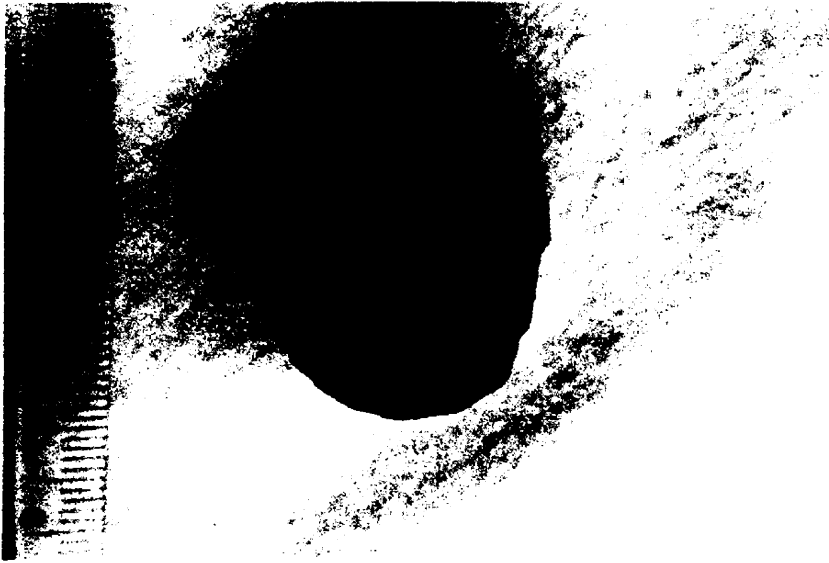


Arikamedu Type 10 rim (sf 10014)

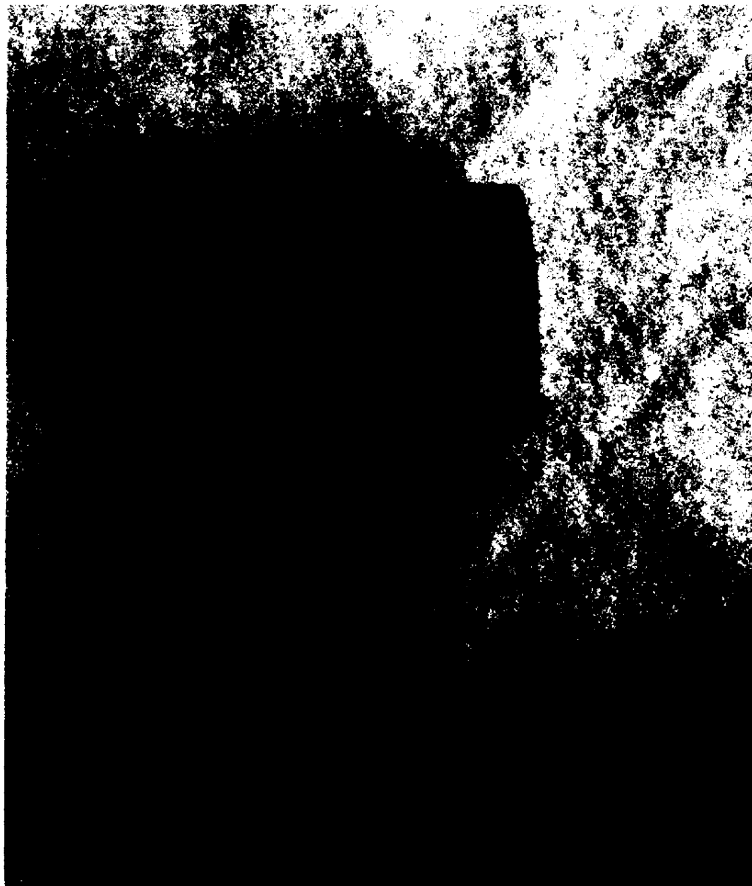


Fine black-slipped ware base (sf 6994)

Plate 6.3: Fine ware sherds

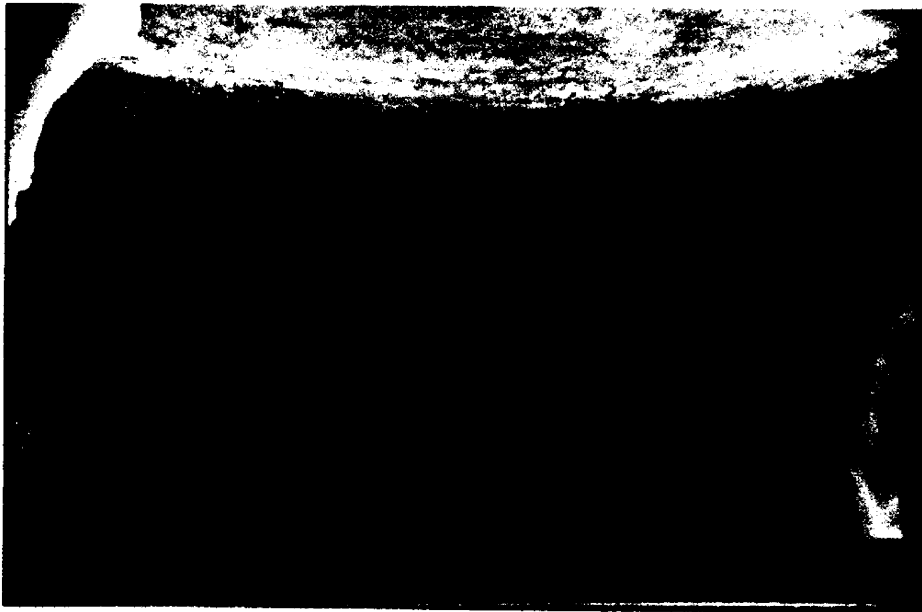


Clay ear reel (sf 1786)



Hexagonal clay bead (sf 6674)

Plate 6.4: Clay objects



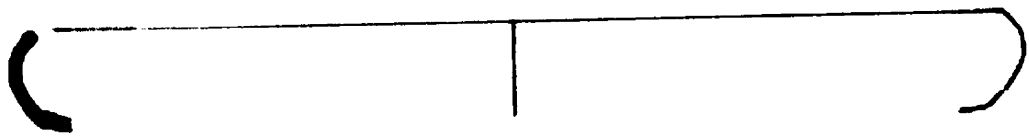
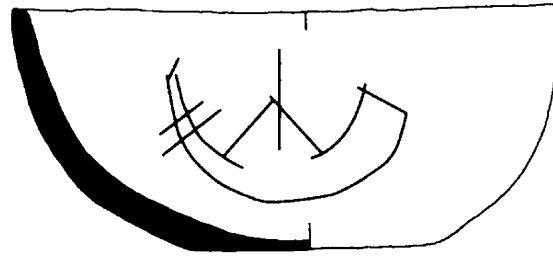
Coarse ware rim with appliqué *trisula* (sf 248)



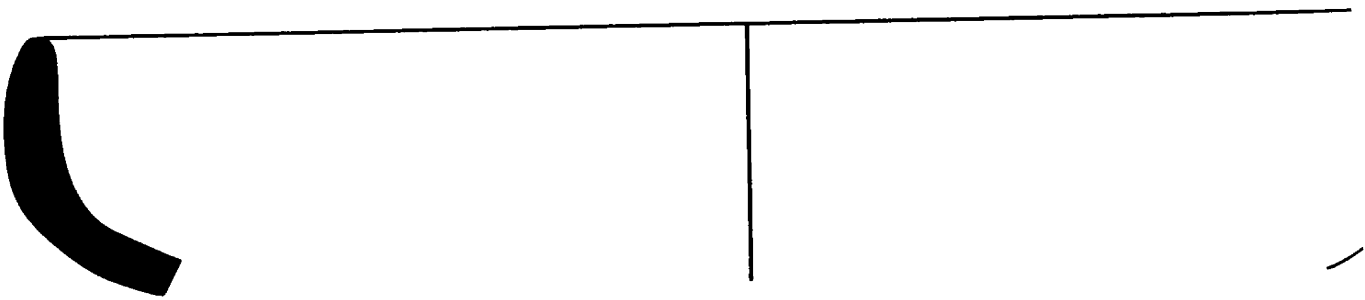
Clay tile (sf 16575)

Plate 6.5: Clay objects.

sf 10548



40002



40004

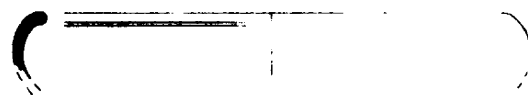


40001

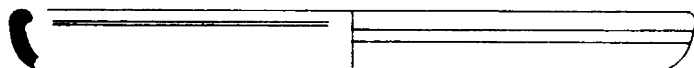


Figure 6.1 Unglazed fine ware ceramics

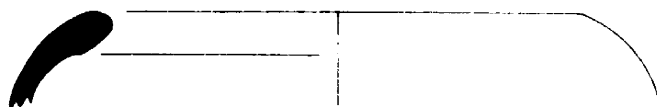
Unglazed Ceramics



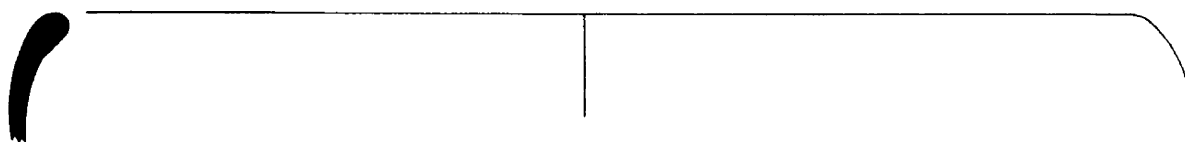
sf 2735



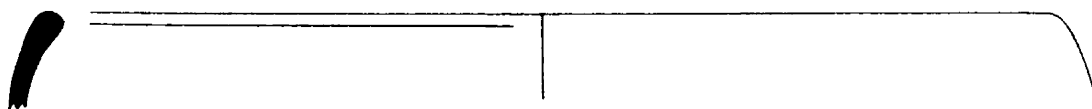
sf 6817



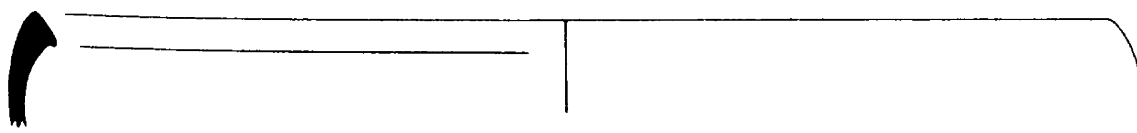
sf 5609



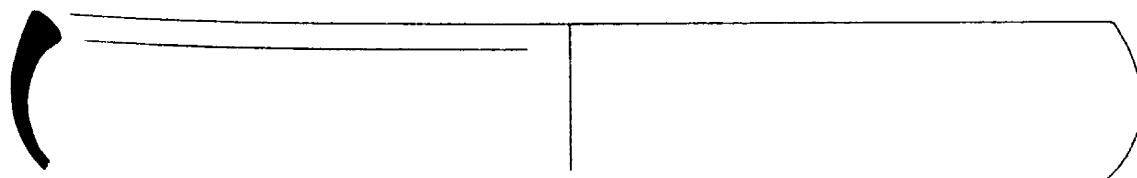
sf 5225



sf 5624



sf 2399



sf 2324



Figure 6.2 Unglazed fine ware ceramics

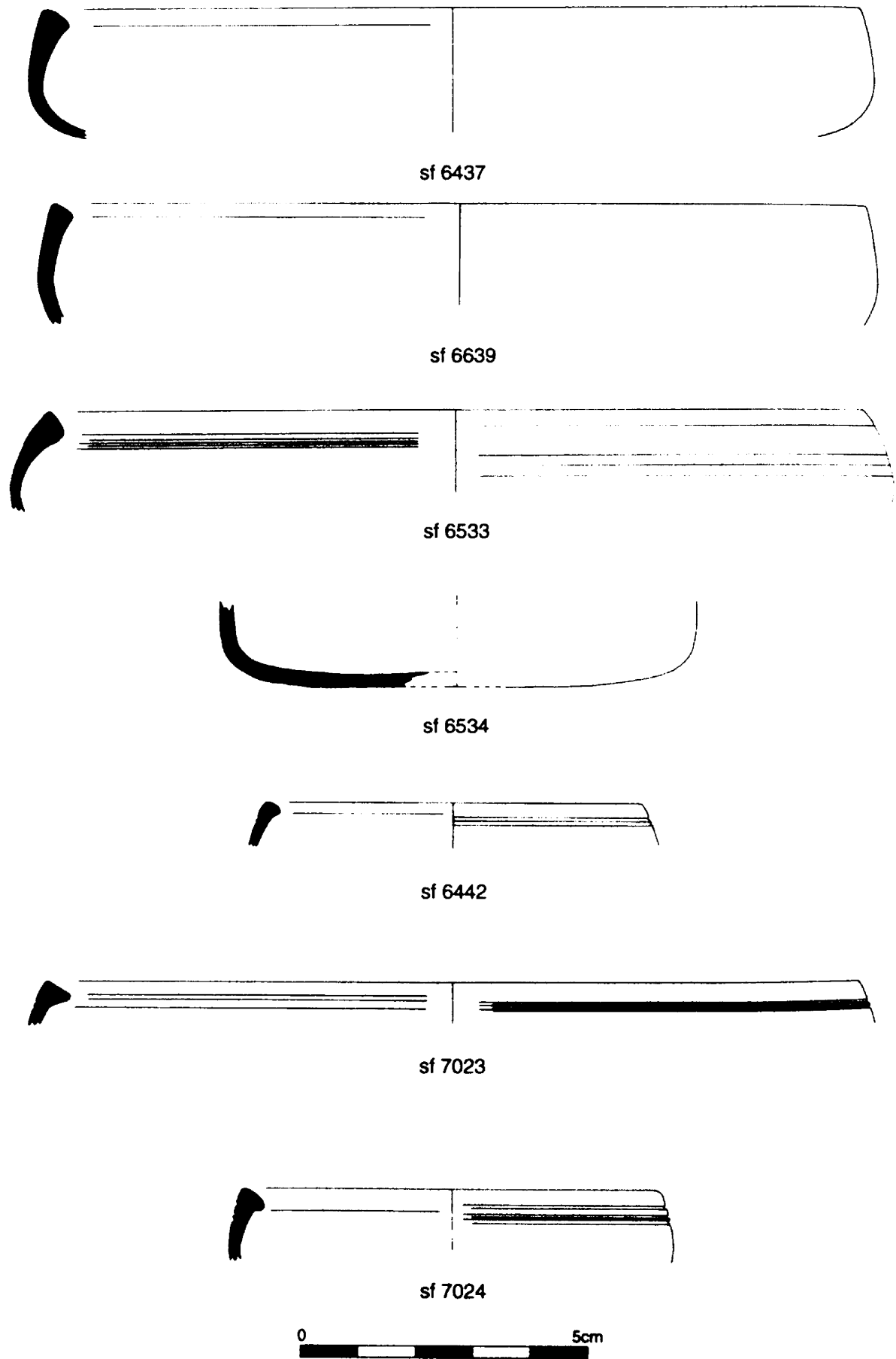
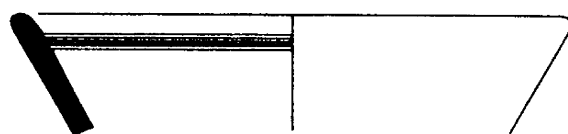
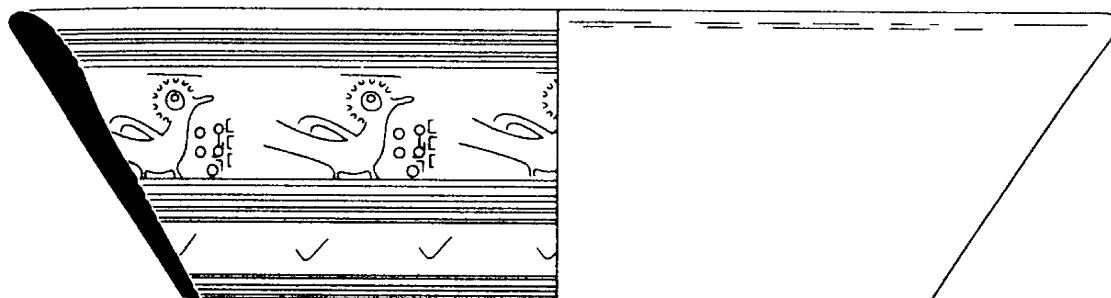


Figure 6.3 Unglazed fine ware ceramics

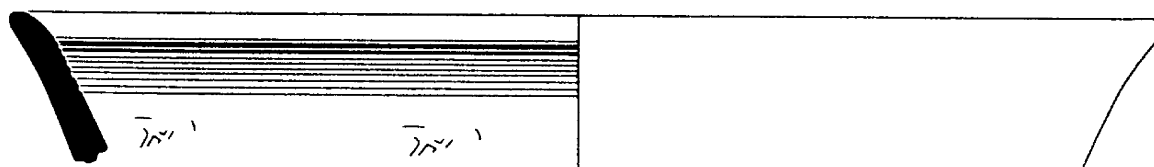
Unglazed Ceramics



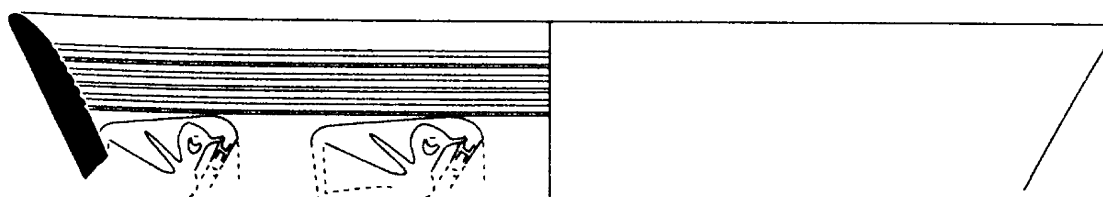
5140



6520 / 6710



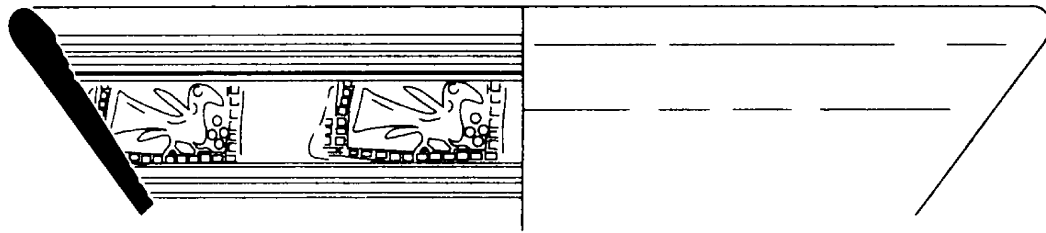
5324



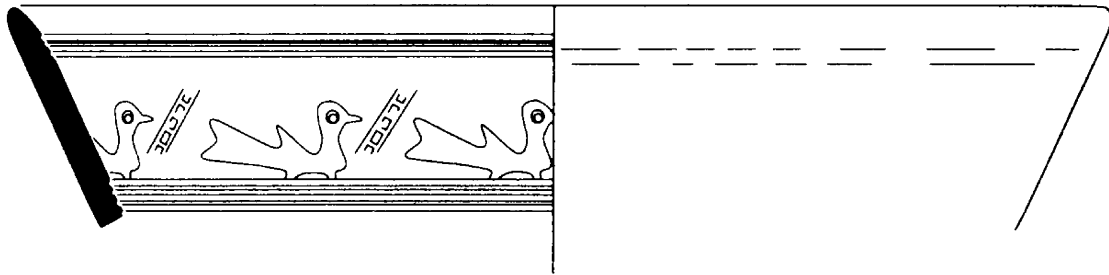
6859



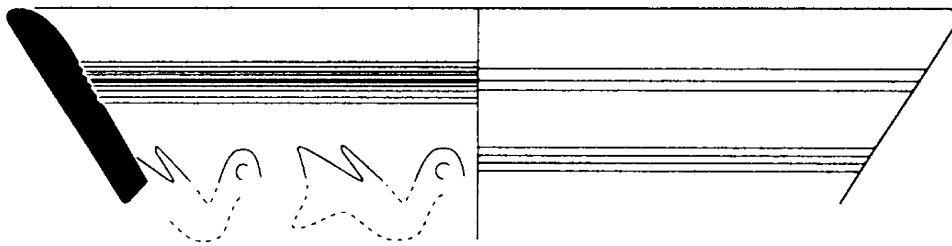
Figure 6.4 Unglazed fine ware ceramics



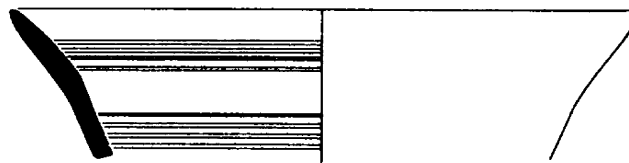
7051



10014



40100



15204

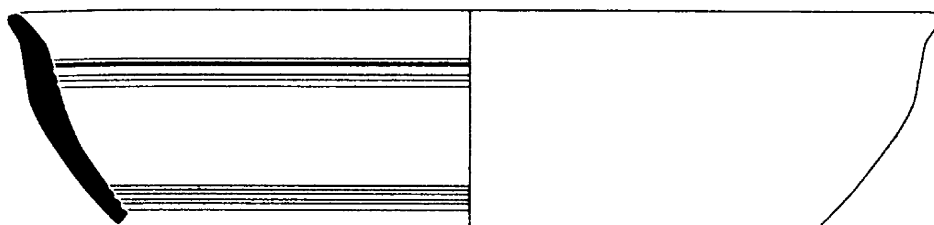


Figure 6.5 Unglazed fine ware ceramics

Unglazed Ceramics



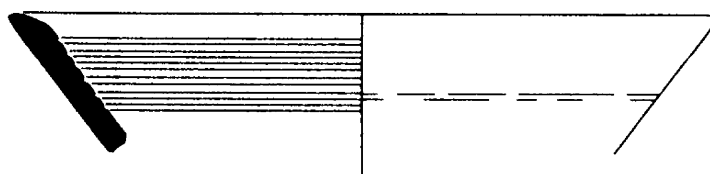
6582



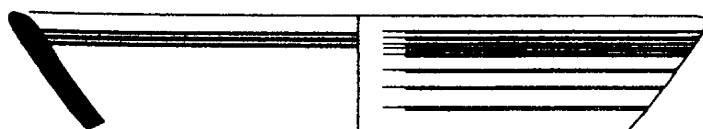
15926



6573



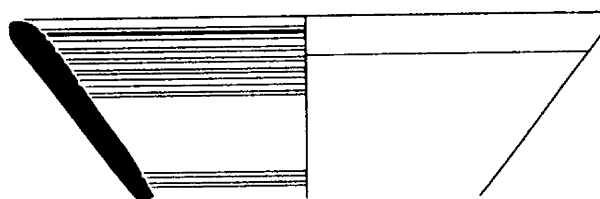
15885



sf 6764



Figure 6.6 Unglazed fine ware ceramics



8186



sf 7116



sf 7040



sf 6007



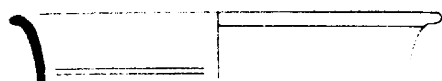
Figure 6.7 Unglazed fine ware ceramic



sf 5223



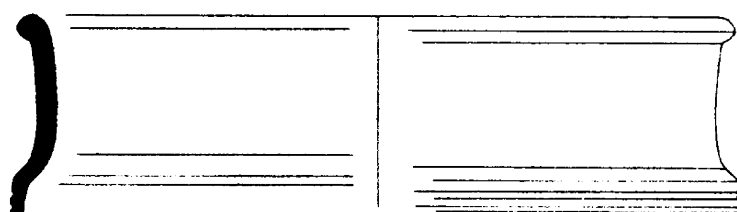
sf 5224



sf 6816



sf 6834



sf 7114



Figure 6.8 Unglazed fine ware ceramics

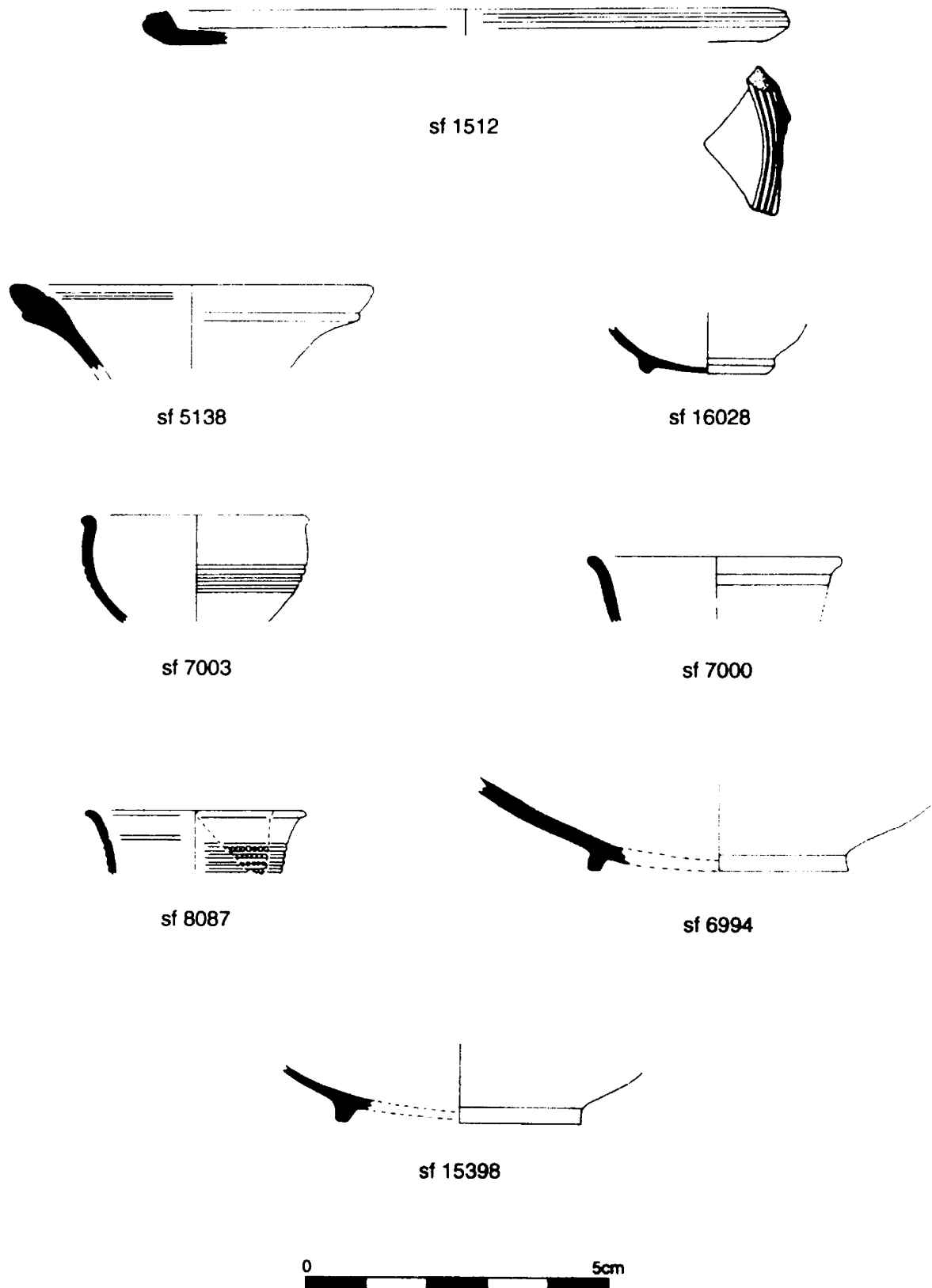
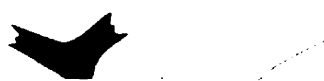


Figure 6.9 Unglazed fine ware ceramics



sf 2909



sf 6997



sf 6624 & 6599



sf 7139



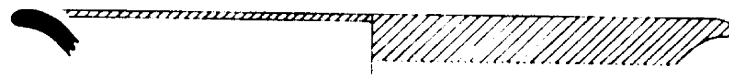
sf 10006



Figure 6.10 Unglazed fine ware ceramics



sf 86



sf 234



sf 979



sf 978



Figure 6.11 Unglazed fine ware ceramic

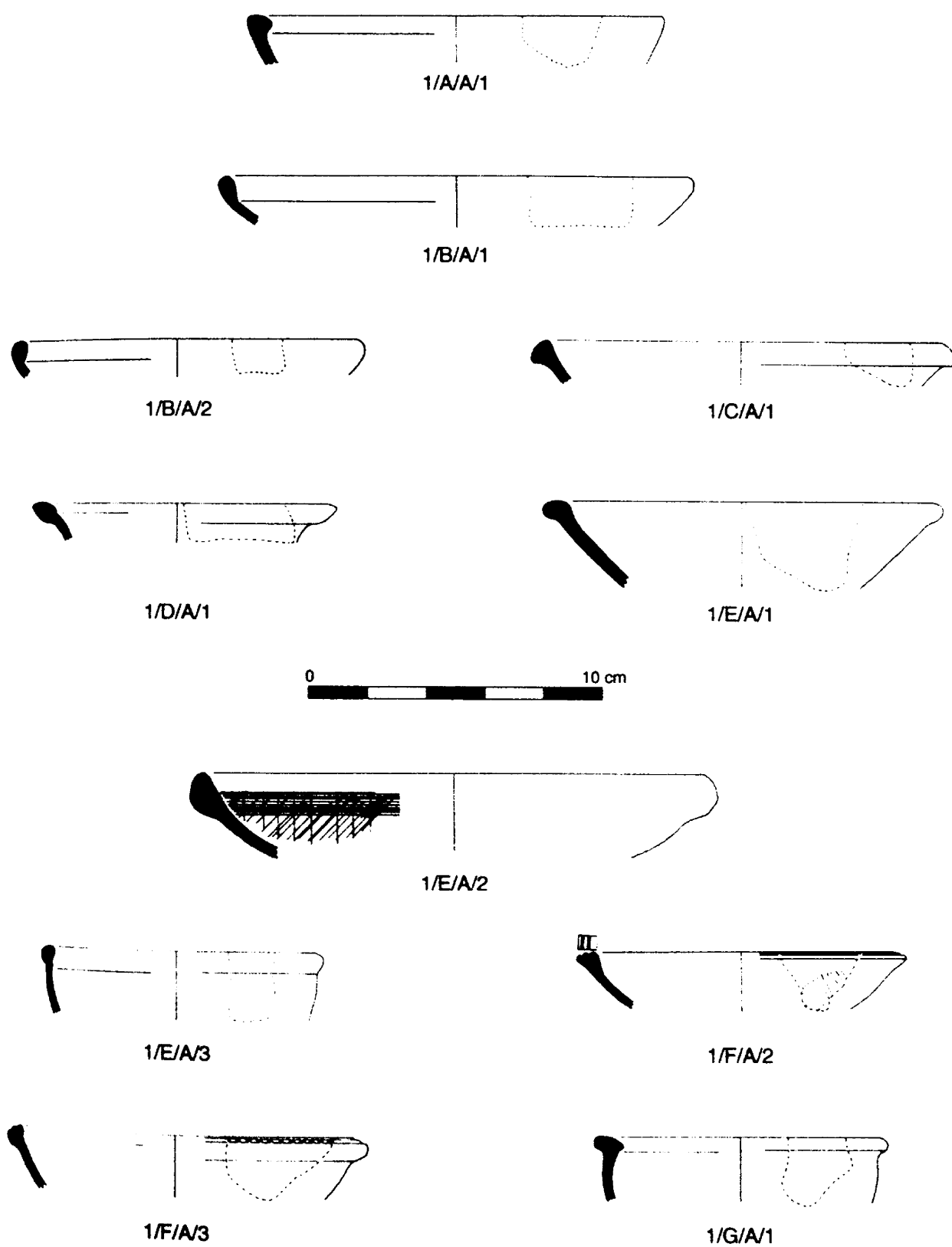


Figure 6.12 Form 1: Shallow Bowls or Nambiliya

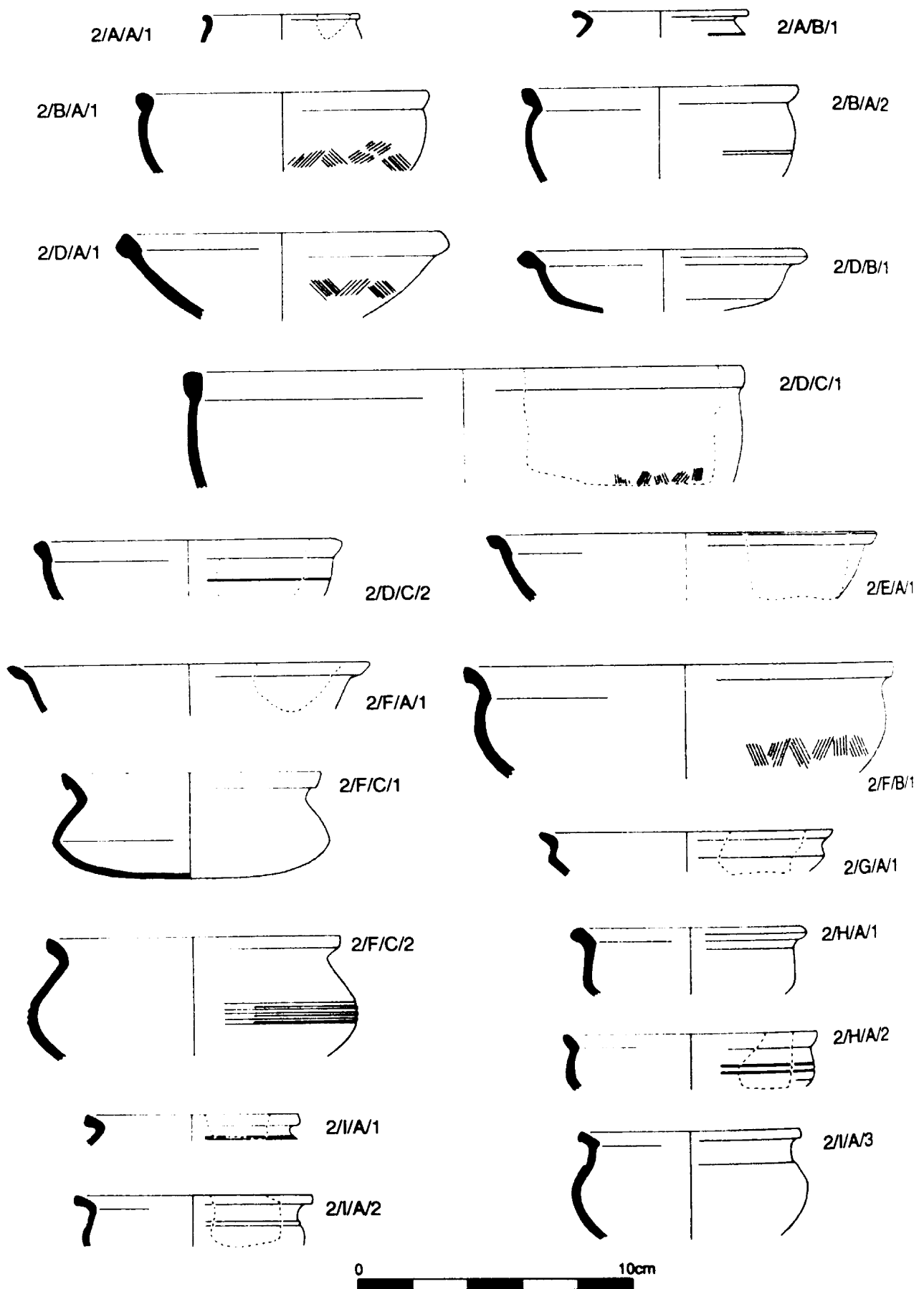
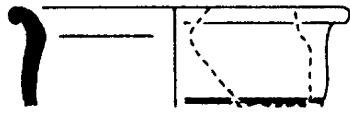
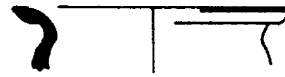


Figure 6.13 Form 2: Bowls or Atili

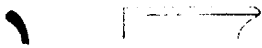


3/A/A/1



3/B/A/1

Form 3: Small Bowls or Atili



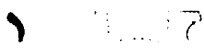
4/A/A/1



4/A/A/2



4/A/A/3



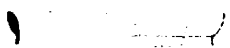
4/B/A/1



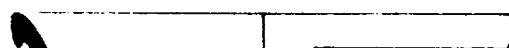
4/B/A/2



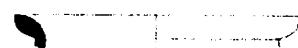
4/B/A/3



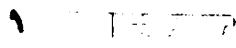
4/D/A/1



4/C/A/1



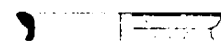
4/D/B/1



4/E/A/1



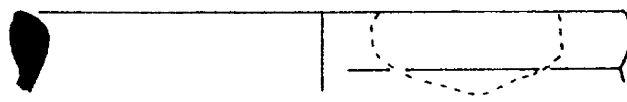
4/F/A/1



4/I/A/1



4/G/A/1



4/I/A/2



4/J/A/1



Figure 6.14 Form 4: Bowls or Atili

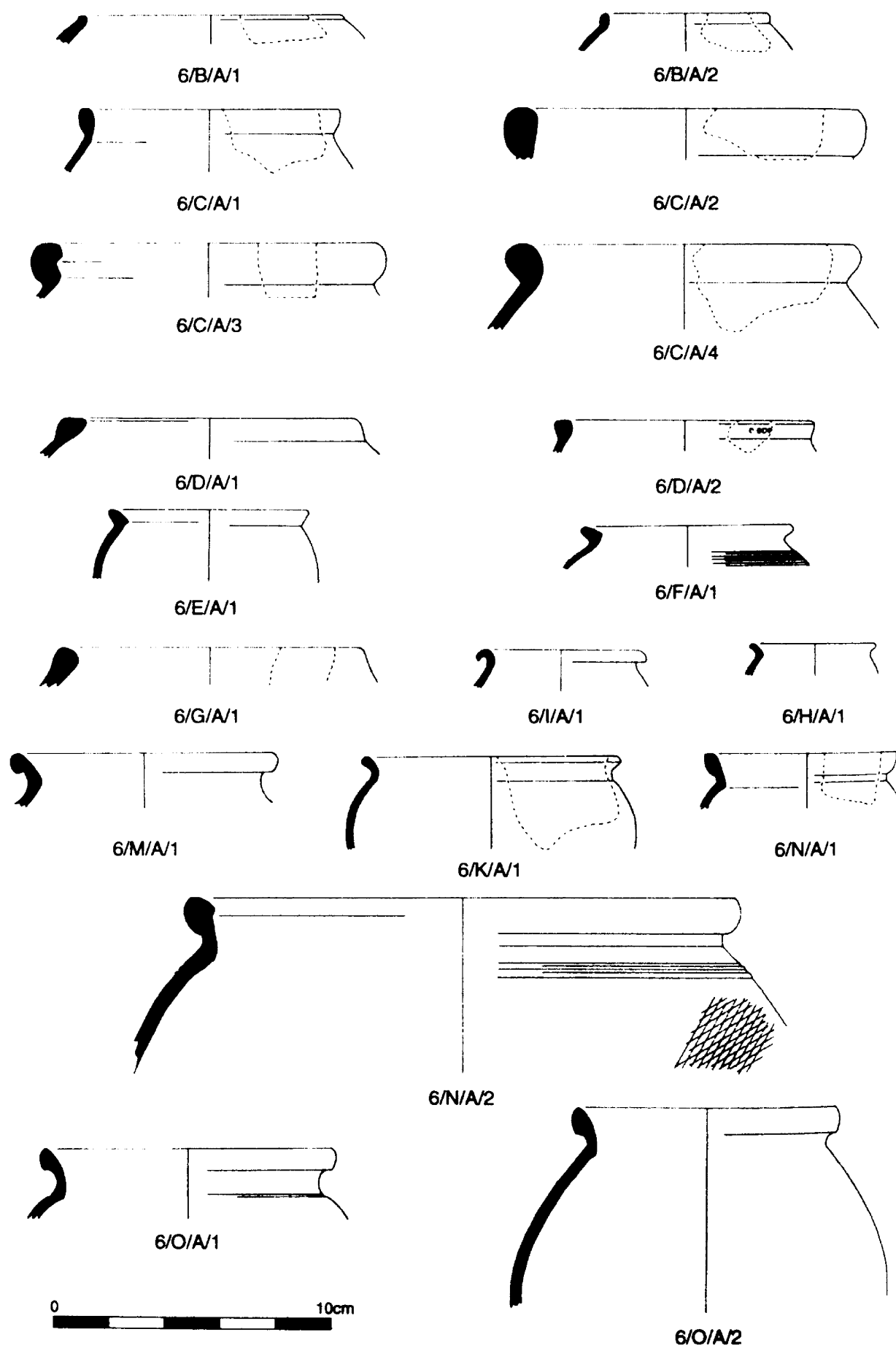


Figure 6.15 Form 6: Pot or Hali

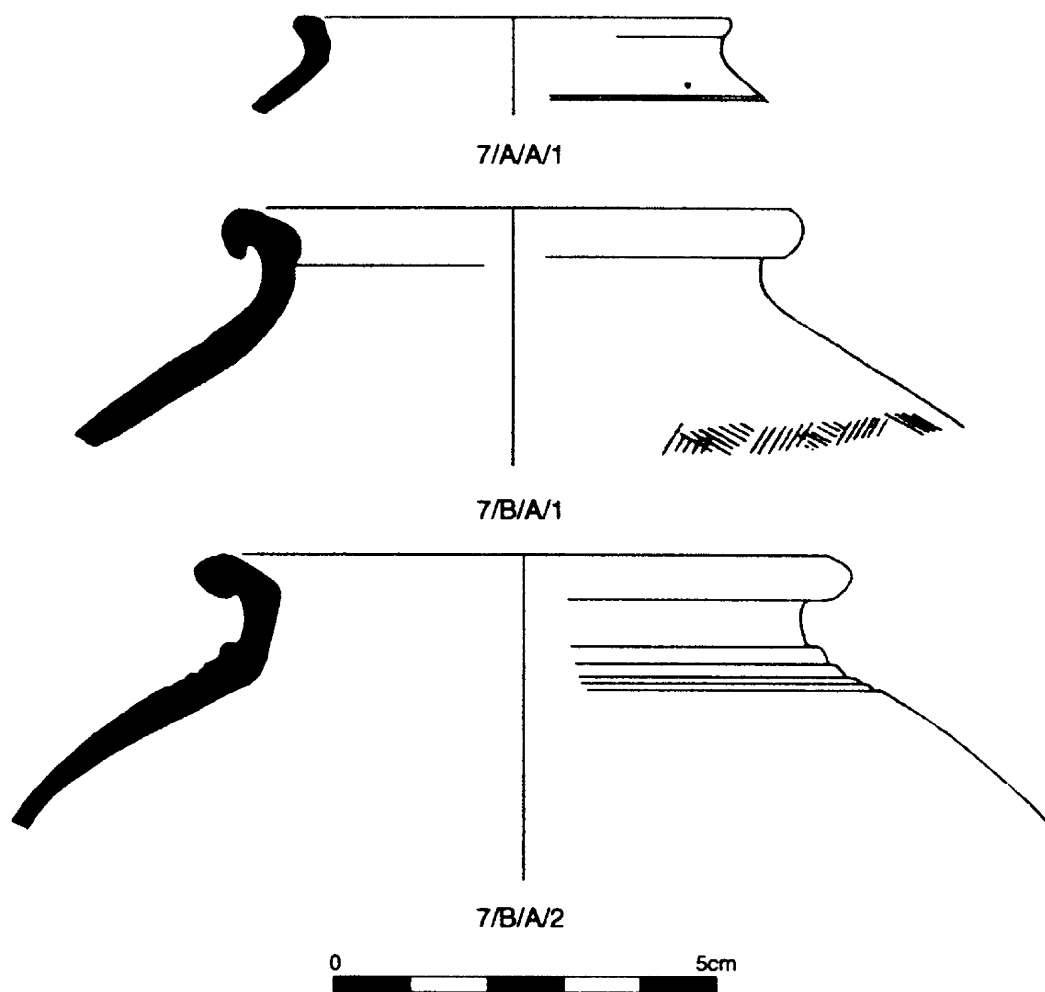


Figure 6.16 Form 7: Pot or Hali

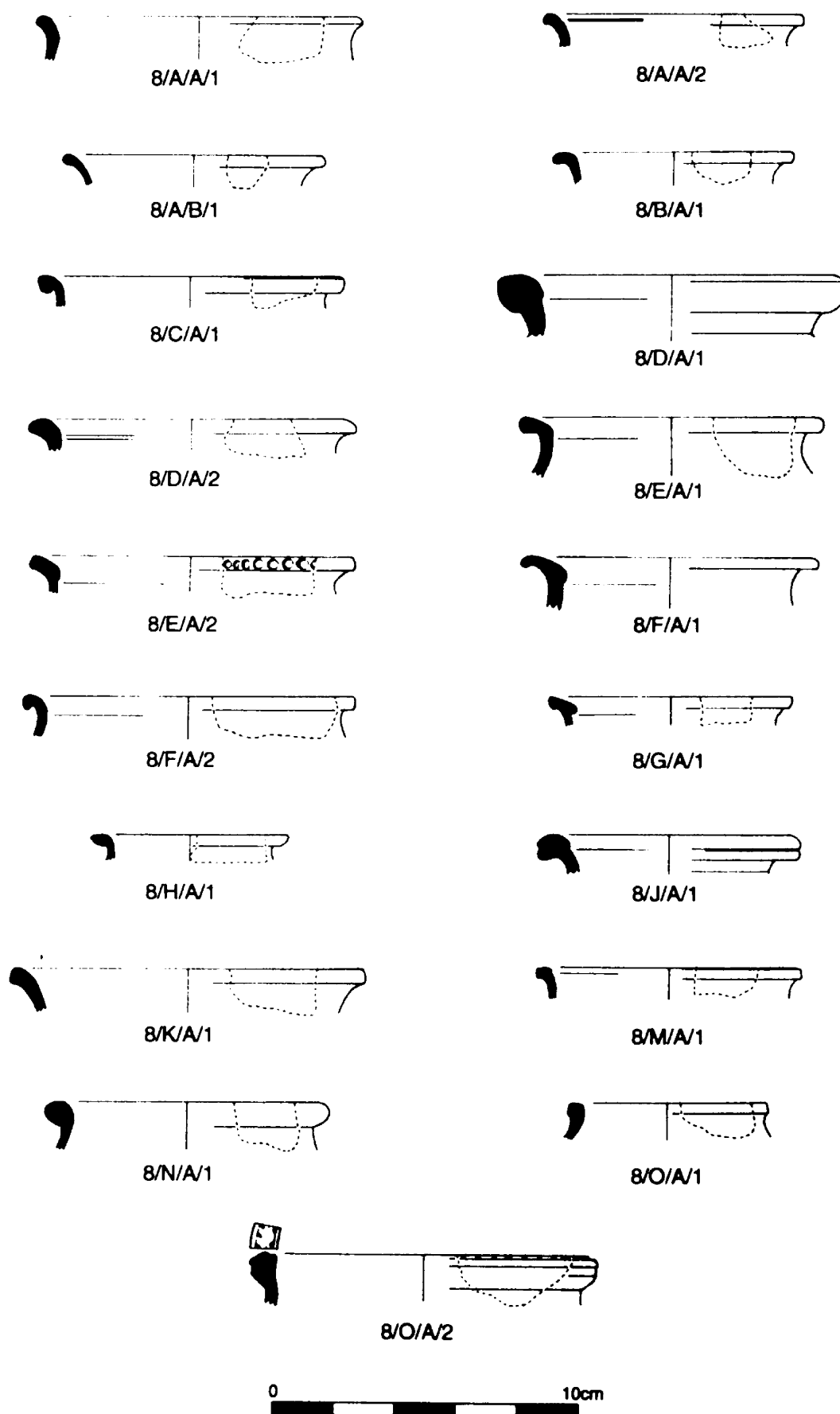


Figure 6.17 Form 8: Pot or Hali

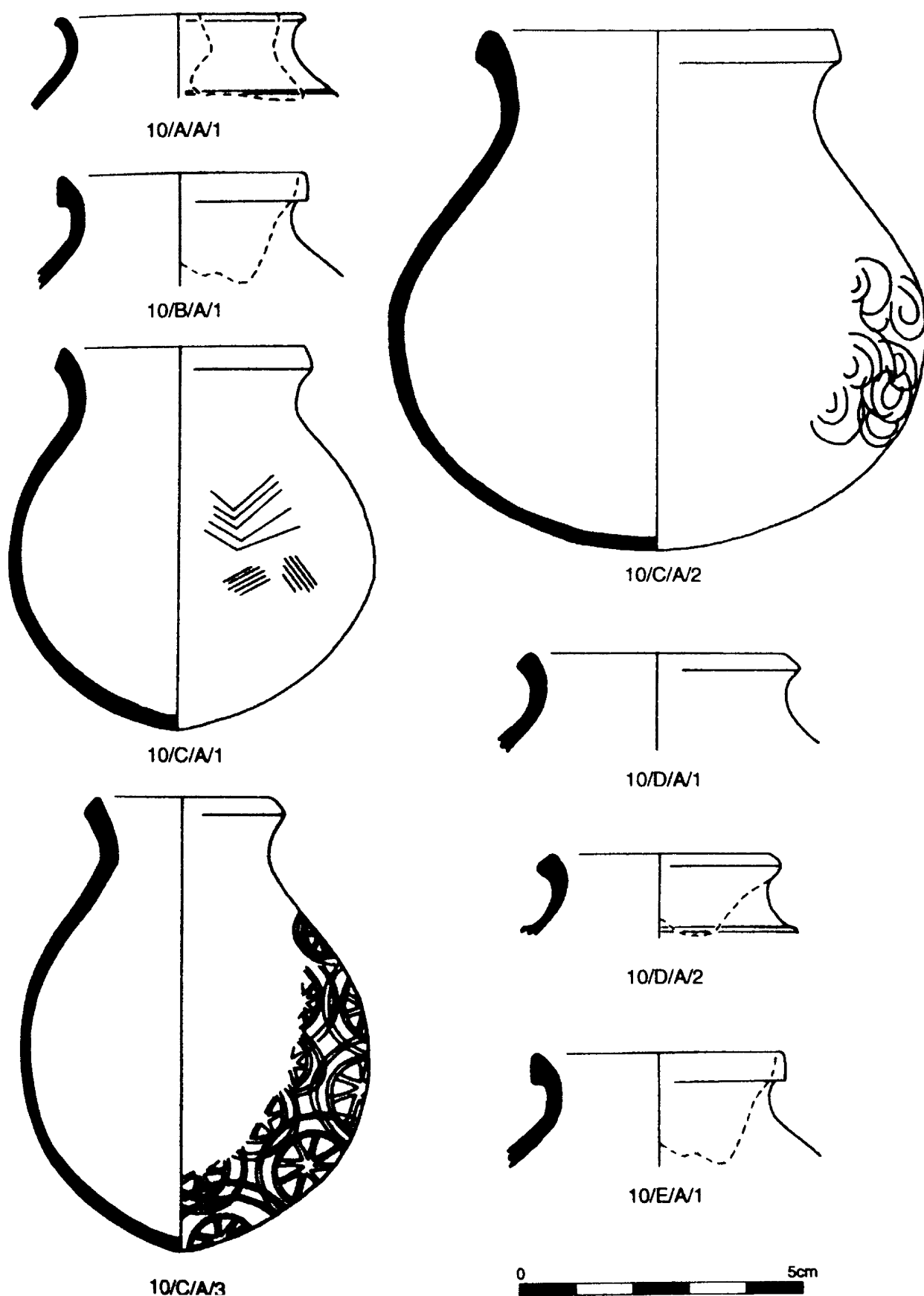
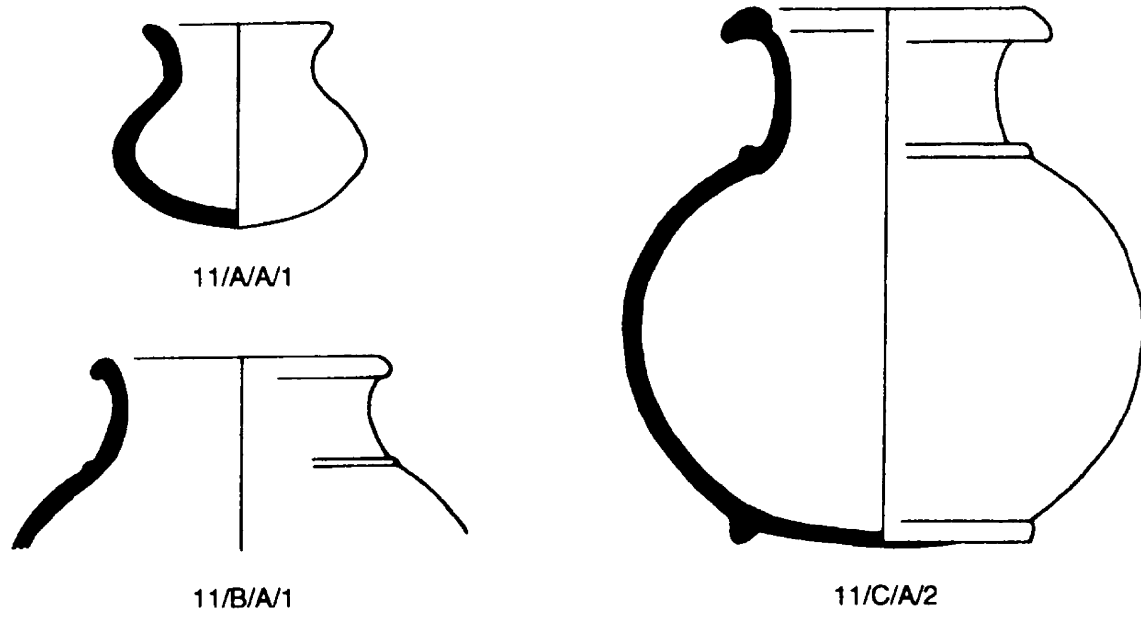


Figure 6.18 Form 10: Jar or Mutti



Form 11: Jar or Mutti

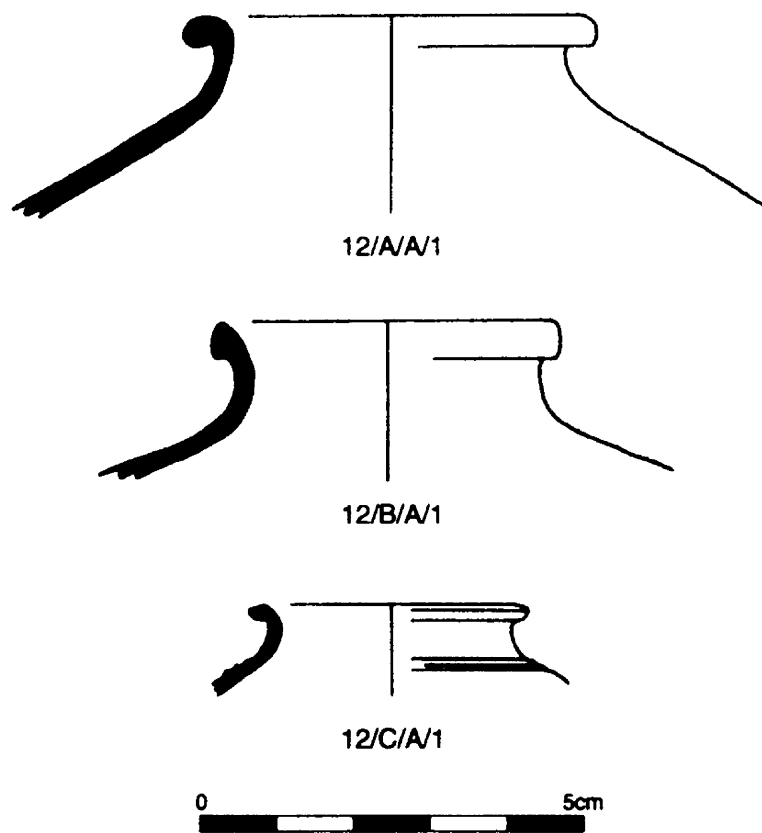
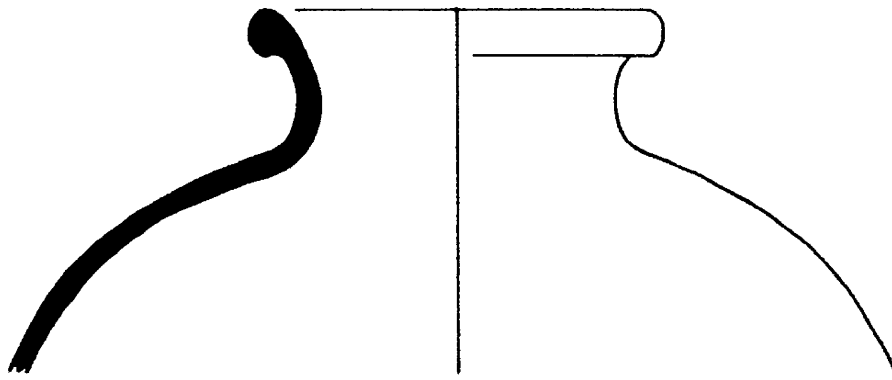
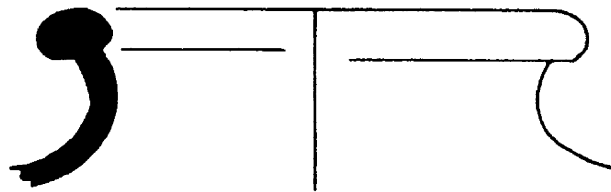


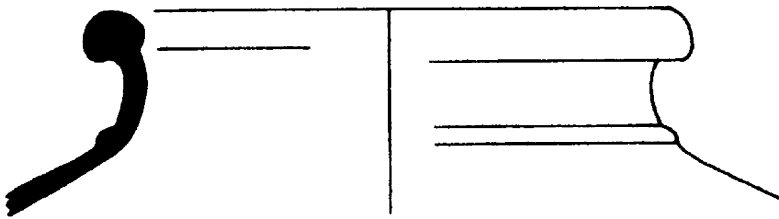
Figure 6.19 Form 12: Jar or Mutti



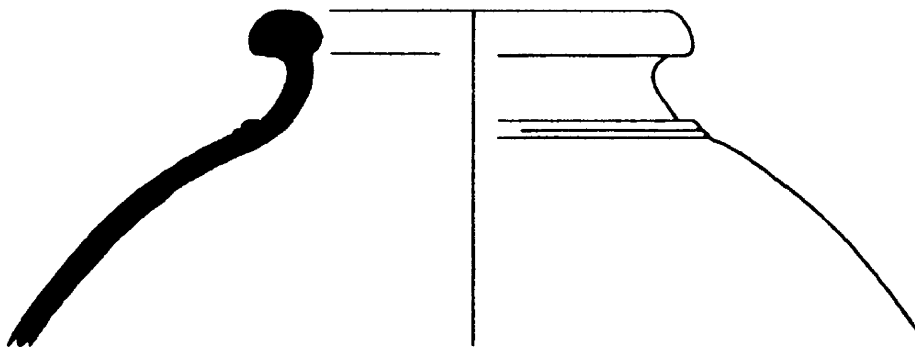
13/B/A/1



13/B/A/2



13/B/A/3



13/B/A/4



Figure 6.20 Form 13: Jar or Kale

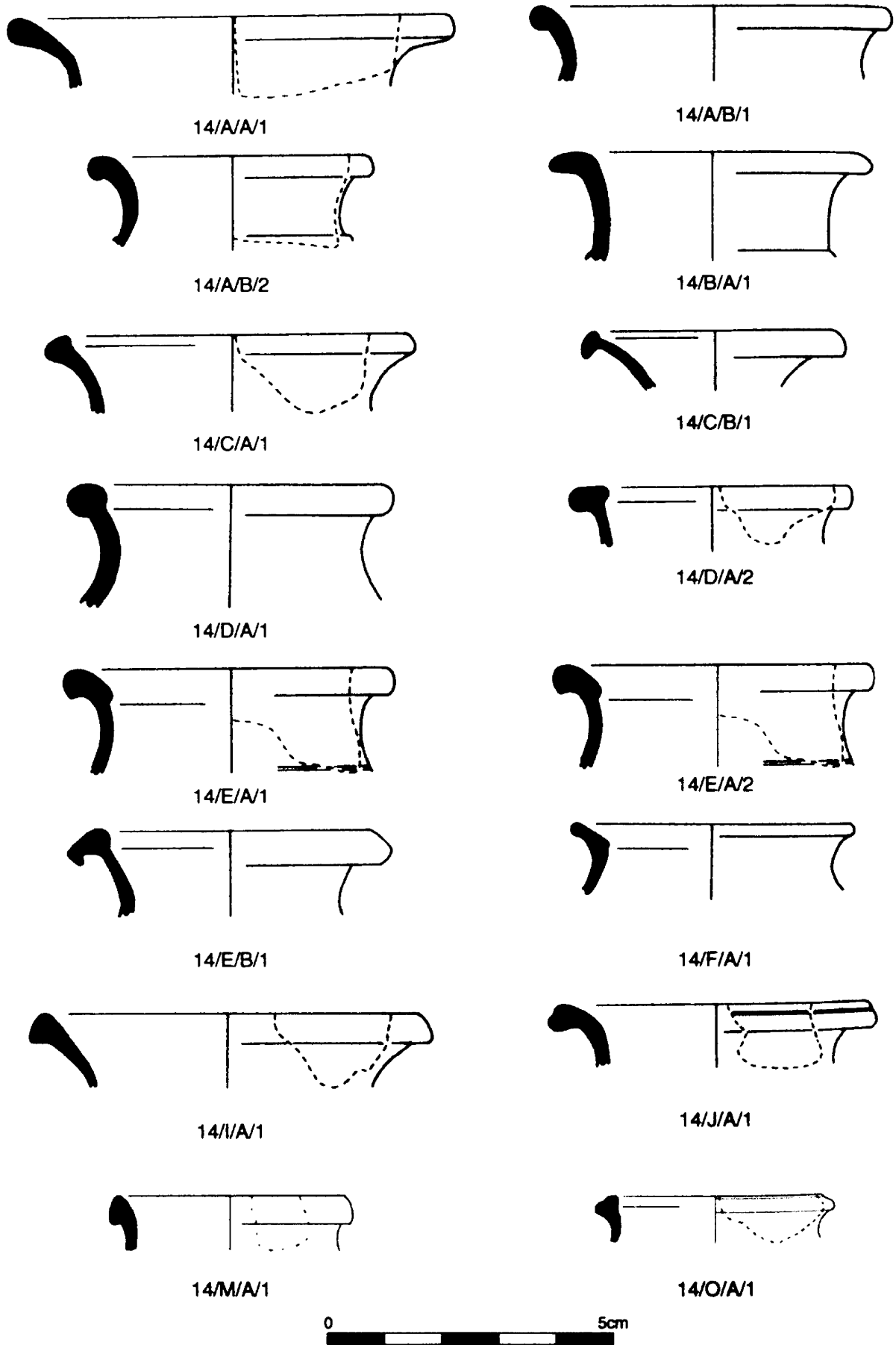


Figure 6.21 Form 14: Jar or Mutti

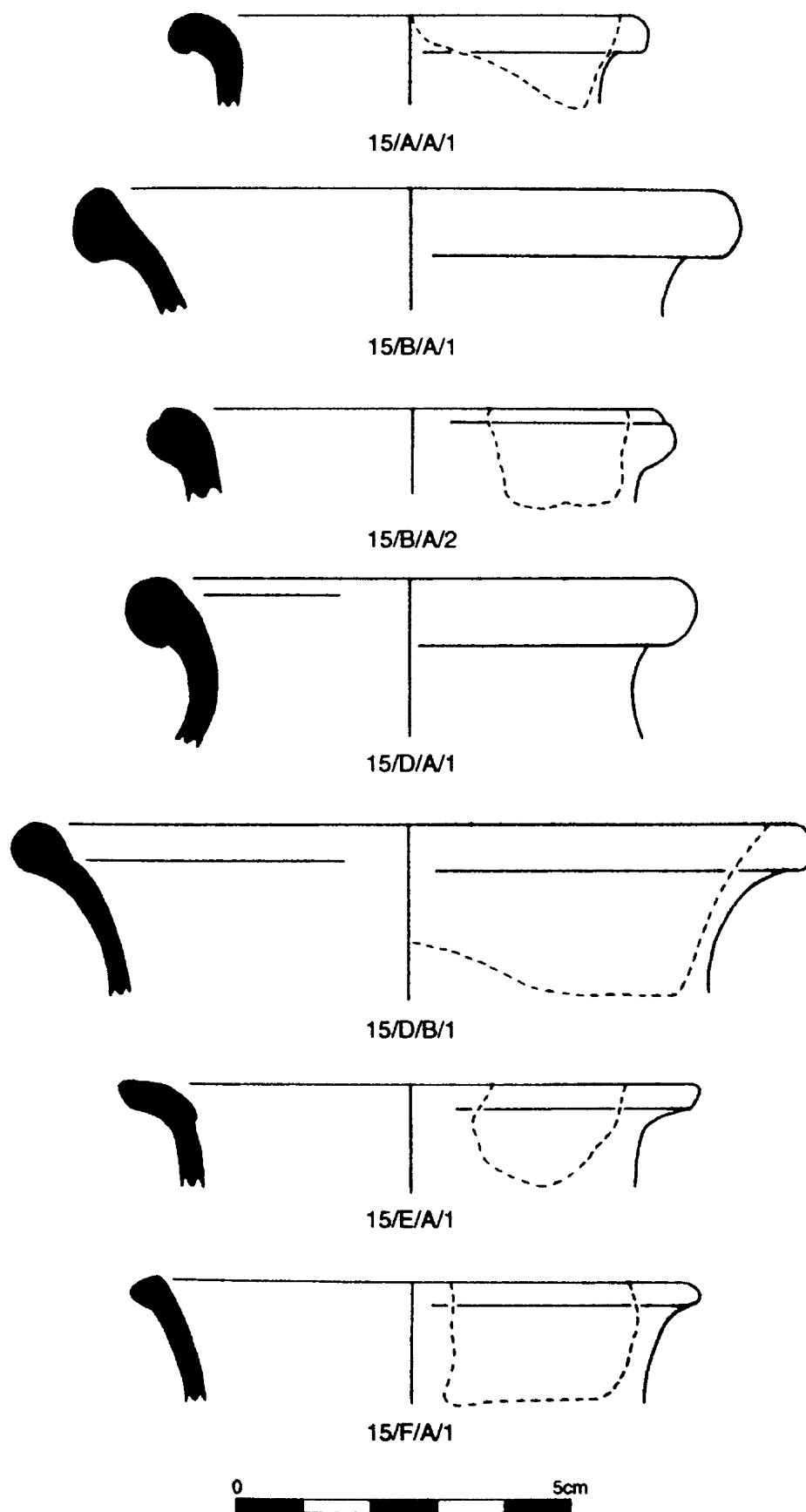
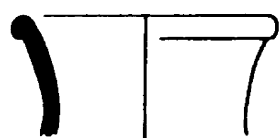
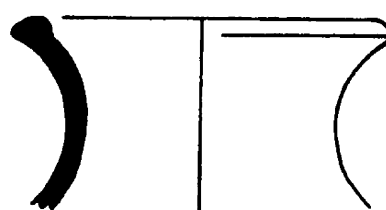


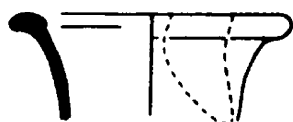
Figure 6.22 Form 15: Jar or Mutti



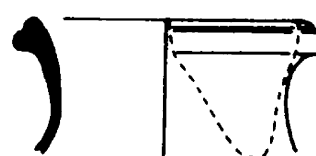
18/A/A/1



18/B/A/1



18/C/A/1

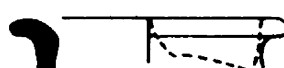


18/D/A/1

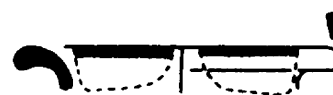
Form 18: Long-necked Jar or Mutti/Kale



20/A/A/1



20/A/A/2



20/A/B/1



20/F/A/1

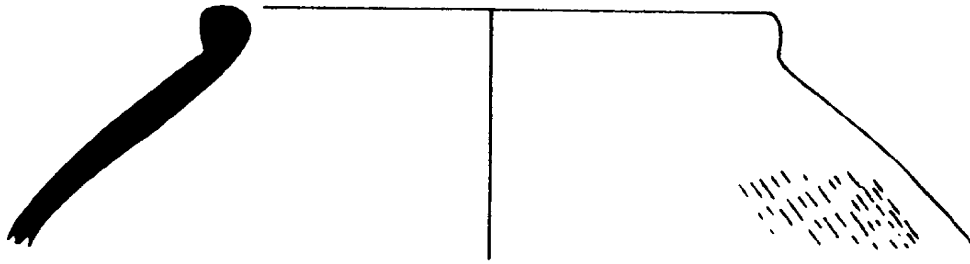
Form 20: Jar or Kotale



22/A/A/2



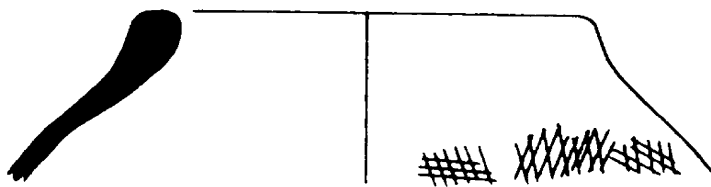
Figure 6.23 Form 22: Jar or Kotale



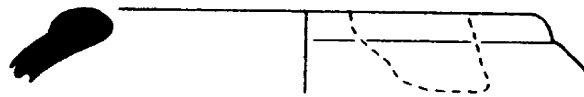
23/A/A/1



23/A/B/1



23/B/A/2



23/C/A/1

Form 23: Jar or Mutti



24/A/A/1



24/B/A/1



24/B/A/2



24/B/B/1

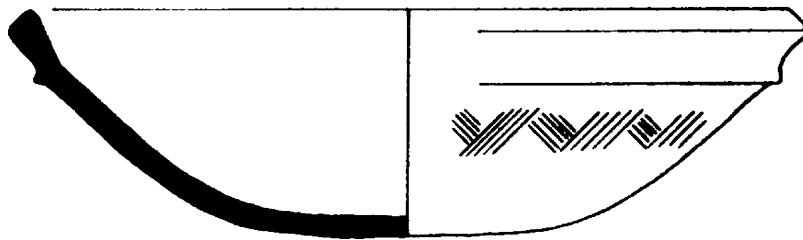


Figure 6.24 Form 24: Jar with Spout or Kemi

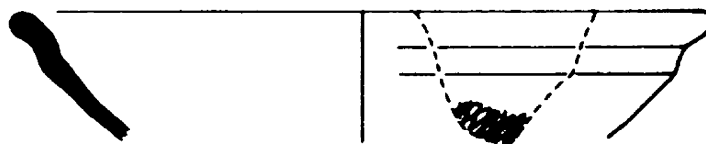


26/A/A/1

Form 26: Jar with Spout/Sprinkler or Kemi

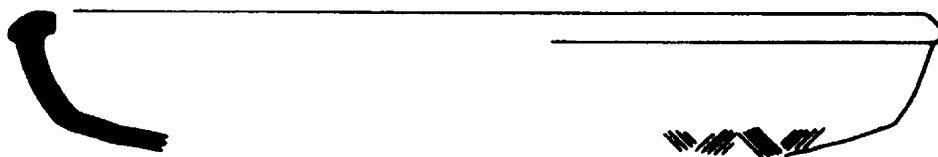


28/B/A/1

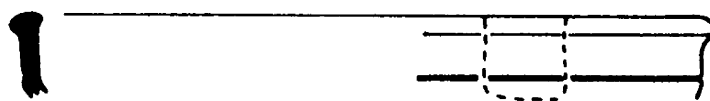


28/C/A/1

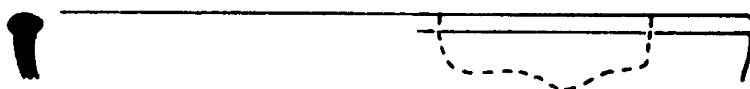
Form 28: Deep Dish or Tali



29/A/A/1



29/A/A/2

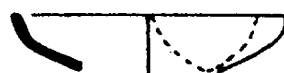


29/A/B/1



Figure 6.25 Form 29: Deep Dish or Tali

Unglazed Ceramics



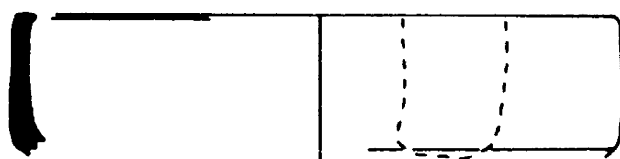
30/A/A/1



30/A/A/2



30/A/A/3



30/A/A/5



30/A/B/1



30/A/B/2



Figure 6.26 Form 30: Dish or Tali

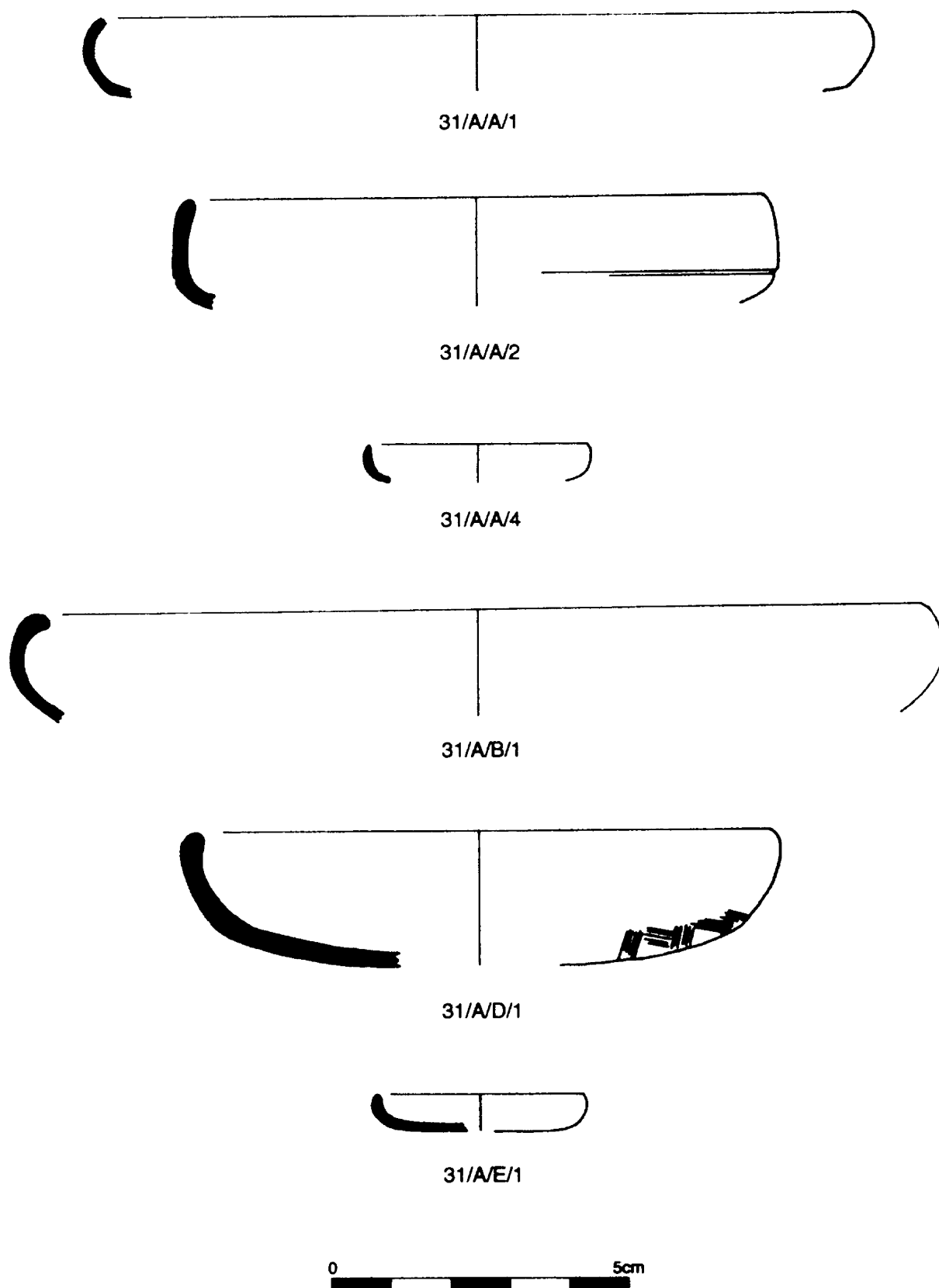
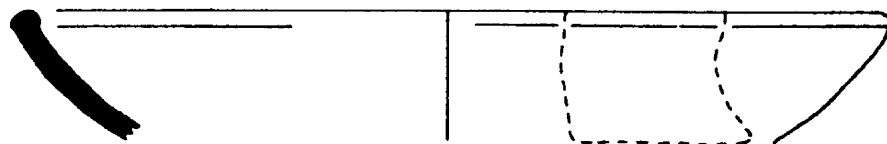


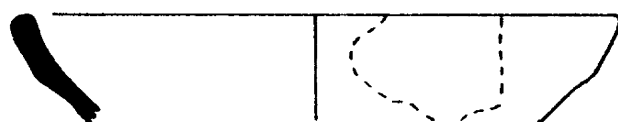
Figure 6.27 Form 31: Dish or Tali



36/A/A/1

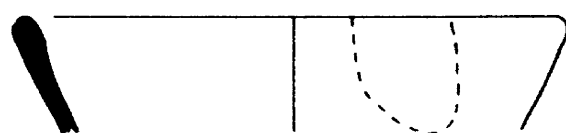


36/A/A/4



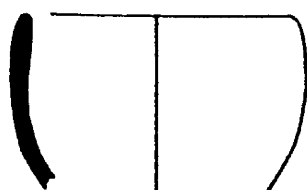
36/A/B/1

Form 36: Shallow Bowl

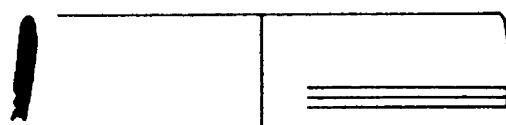


37/A/A/1

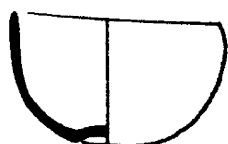
Form 37: Medium Shallow Bowl



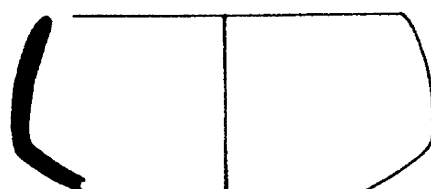
38/A/A/1



38/A/A/2



38/A/A/3



38/A/B/1



38/A/C/1

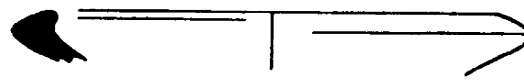


Figure 6.28 Form 38: Deep Bowl



40/A/A/1

Form 40: Deep Bowl:



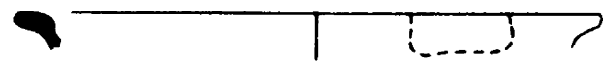
44/C/A/1



44/E/A/1

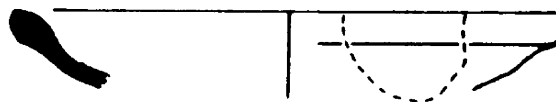


44/F/A/1



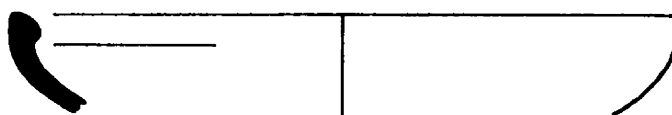
44/G/A/1

Form 44: Flat Bowl or Tai

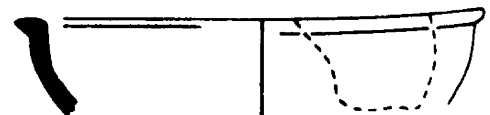


47/C/A/1

Form 47: Shallow Bowl Form



48/A/A/1



48/C/A/1



Figure 6.29 Form 48: Wide Bowl or Mati-Koppe

Unglazed Ceramics



51/A/A/1

Form 51: Lamp or Pahan

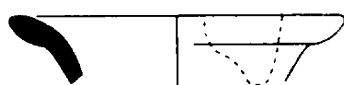


53/A/A/2

Form 53: Rimmed Bowl or Mati-Koppe



54/A/A/1

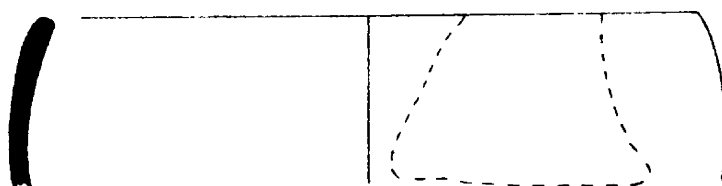


54/C/A/1

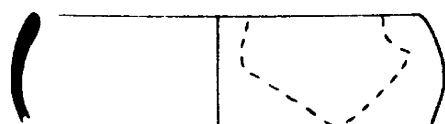


54/B/A/1

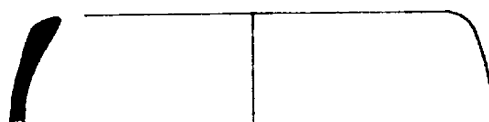
Form 54: Cup



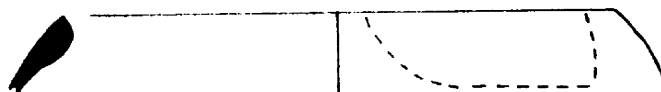
56/A/A/1



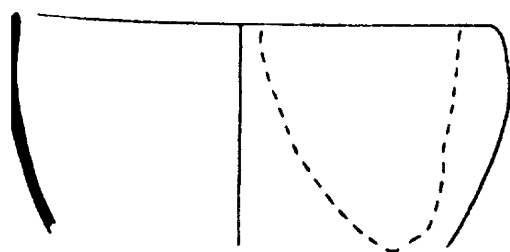
56/B/A/1



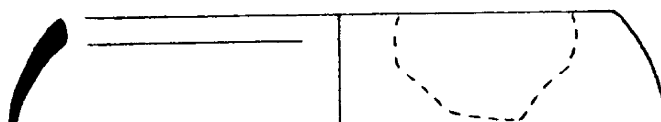
56/A/A/2



56/C/A/1



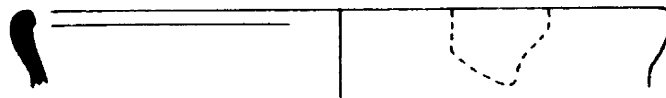
56/B/B/1



56/E/A/1

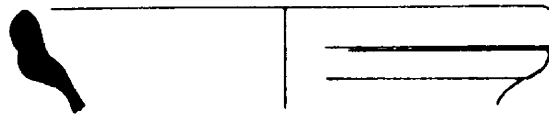


Figure 6.30 Form 56: Enclosed Bowl or Patraya

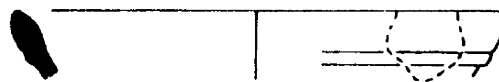


59/A/A/1

Form 59: Rimmed Bowl or Matti-Koppe/Atili

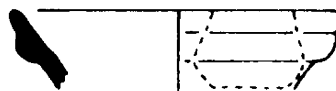


60/B/A/1



60/B/B/2

Form 60: Rimmed Bowl or Matti-Koppe/Hali



61/E/A/2

Form 61: Rimmed Bowl or Matti-Koppe/Mutti



62/B/A/1

Base of Dish or Tali



62/B/B/1

Base of Bowl or Koppe/Mutti



62/B/C/1

Base of Bowl or Koppe/Mutti



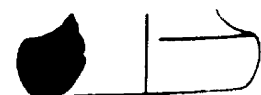
62/C/A/1

Base of Bowl or Koppe/Mutti



62/D/A/1

Base of Unidentified Vessel

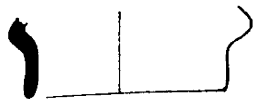


62/D/A/2

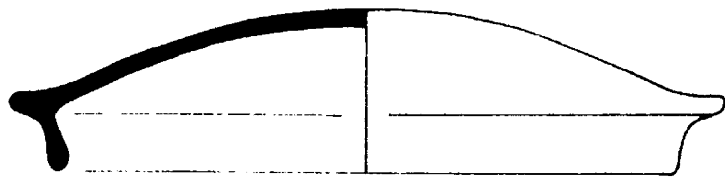
Base of Unidentified Vessel



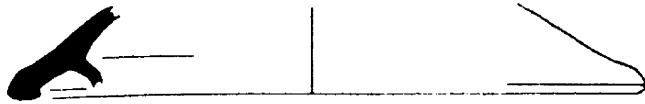
Figure 6.31 Form 62: Base of Dish or Tali



65/A/A/1



65/B/A/1

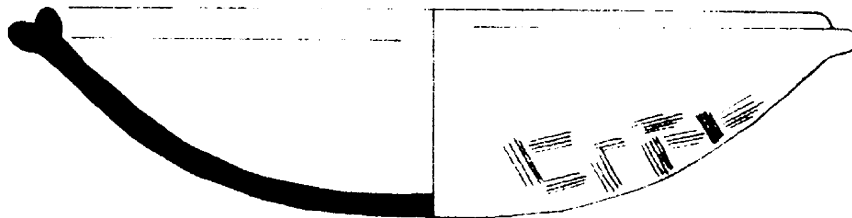


65/B/B/1

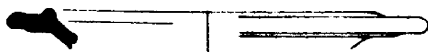
Form 65: Long-Footed Lid with Low Dome or Mudiya



66/A/A/1



66/B/A/1

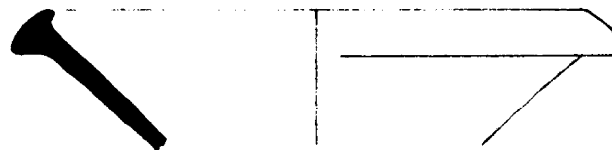


66/C/A/2



66/D/A/1

Form 66: Short-Footed Lid with Low Dome or Mudiya



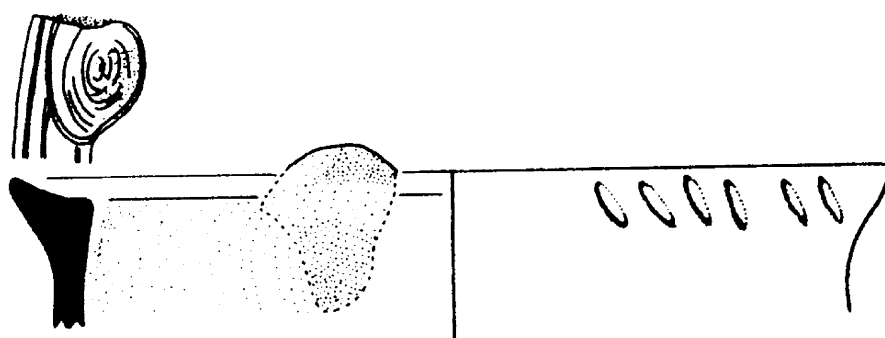
67/A/A/3



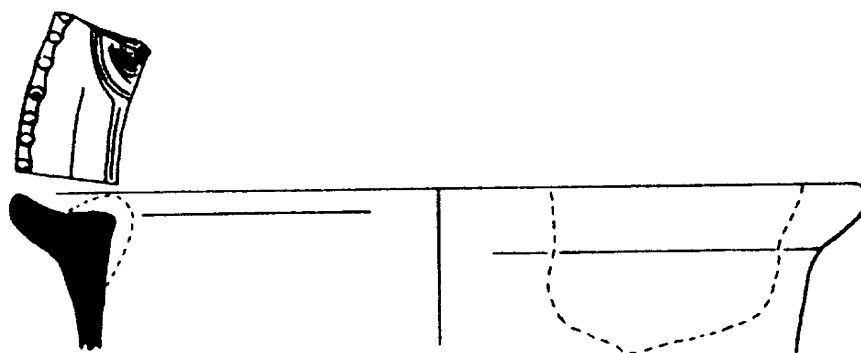
67/A/A/1



Figure 6.32 Form 67: Footless Lid with with Basal Rim Folded Inwards or Mudiya

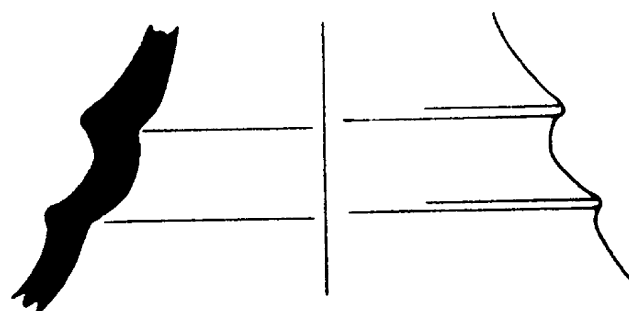


72/A/A/2

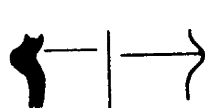


72/A/A/3

Form 72: Portable Stoves or Lipa



74/C/A/1



73/B/A/1



74/A/B/1



Figure 6.33 Form 73 and 74: Architectural Pinnacles

Unglazed Ceramics

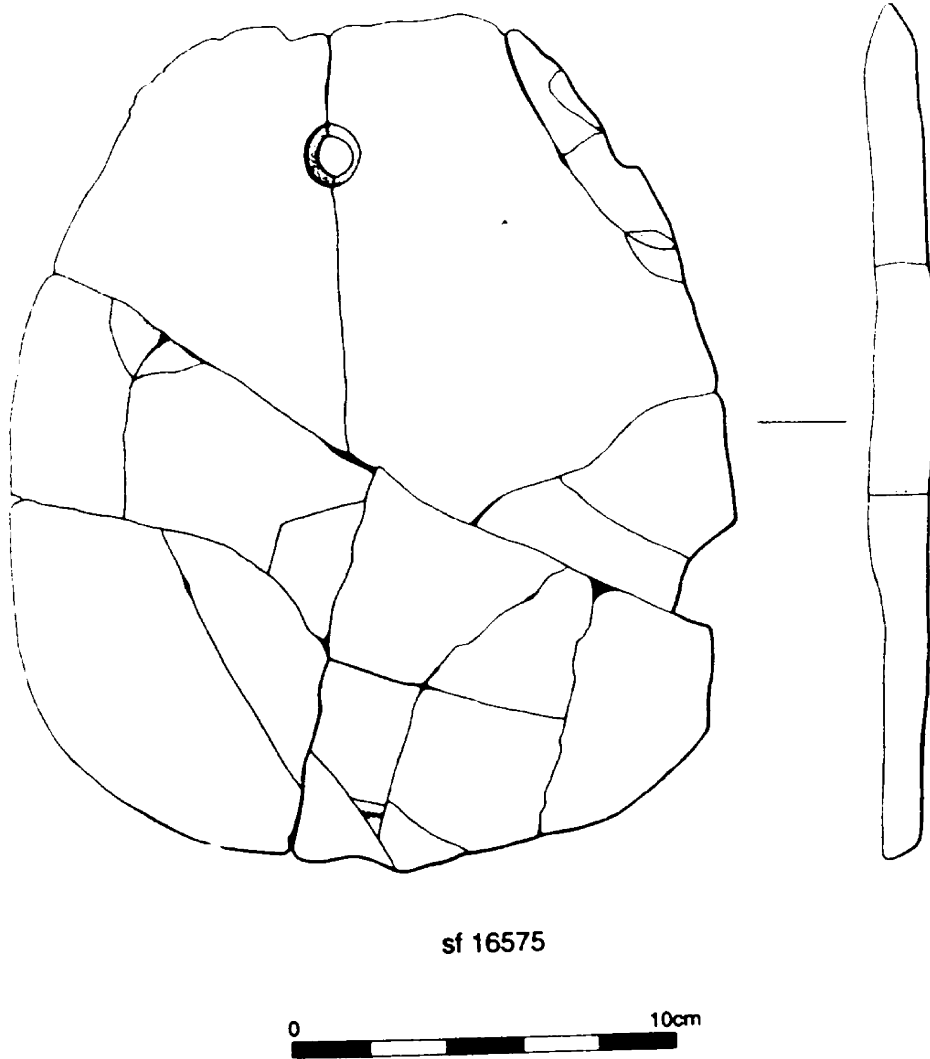
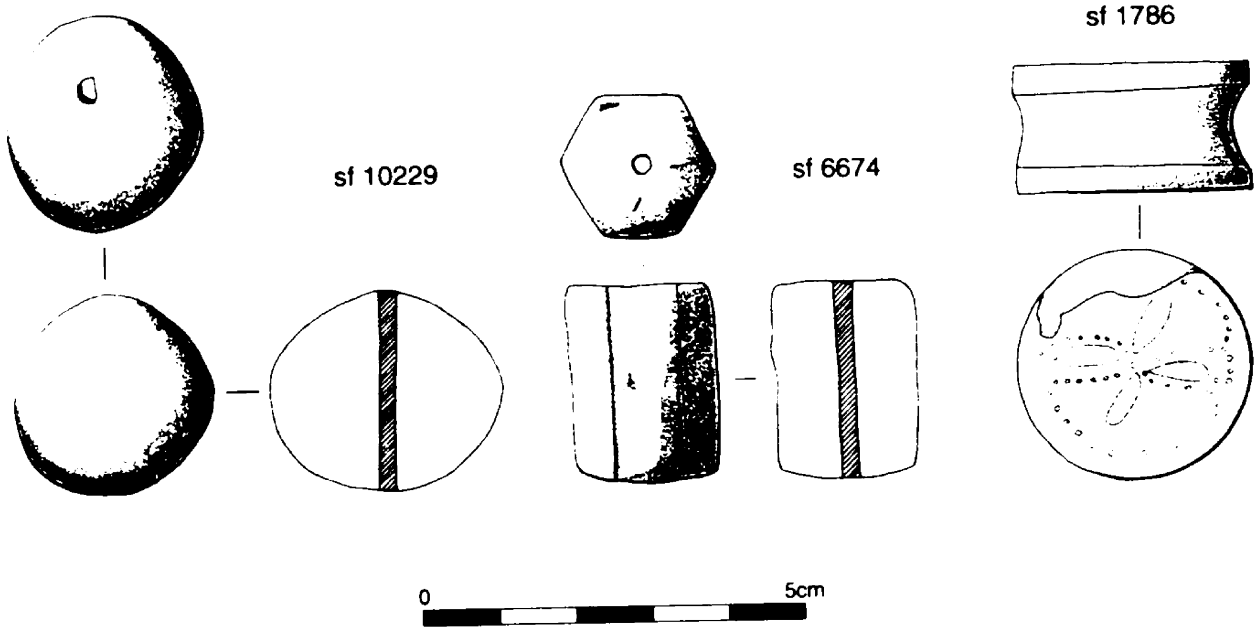


Figure 6.34 Clay Objects

CHAPTER 7

GLASS OBJECTS

Robin Coningham

7.1 Introduction

Glass, a relatively late arrival in the ASW2 sequence, represents a great technological advance over earlier objects of semiprecious stone, metal or pottery in that it is easier to manipulate and less labour-intensive to produce. This development is particularly true of the later development of blown glass which enabled mass production of a variety of forms and sizes. A further advantage of glass, as indicated by Harden (1987: 1), is that its surface is more or less impervious to 'normal household soiling agents' and therefore can be cleaned efficiently and quickly. In addition, glass objects have the advantage, if coloured, of being visually very similar to those made of semi-precious or precious stone. Glass bangles, ring and beads are clearly examples of the latter phenomenon. Just over five thousand glass objects were recovered from trench ASW2, weighing a total of 1479.72 g (see Table 7.1). The most numerous object category was beads, representing a total count of 4,897 examples and a weight of 733.46 g, with vessel fragments second with 443 examples and a weight of 401.6 g. Unformed and ingot glass represents the third largest group with 96 examples weighing 214.87 g, while rings, bangles and other objects have a combined count of 98 and a weight of 44.13 g. In terms of phasing, beads are the earliest occurring objects of glass, having been found in period J, although an example of a glass ring was found in period I. The earliest glass vessels were found in period G along with the earliest example of unformed glass, but period F saw a great increase in terms of glass categories with the recovery of examples of glass vessels, hair curls, ear reels, rings, bangles, beads, unformed glass and even an ingot. This pattern of representation is continued in period C, D & E with the addition of a glass kohl stick but declines in period B.

The glass objects from ASW2 represent an extremely significant artefact group as they straddle a period from the fifth century BC to the eleventh century AD, allowing us to form a typology and make comparisons with other sites. In particular, the identification of Eastern Mediterranean glass vessels of the first century BC to first century AD ties in well with the presence of metal and ceramic imports from the Graeco-Roman world, strengthening our understanding of the early Indian Ocean trade. In parallel, the identification of Persian, Egyptian and Syrian glass vessels of the tenth and eleventh centuries AD correlates very strongly with the presence of lustre wares, tin glazes

and other glazed ceramics. Such parallels go further to strengthen the concept of continuity in trade from the first century BC to the eleventh century AD as well as the importance of the role of the city of Anuradhapura as one of the central points in this trade. Sections 7.2 to 7.5 contain the various artefact descriptions and catalogues. Although we have attempted, where possible, to draw analogies between the artefacts from ASW2 and those from other Sri Lankan and South Asian sites, this has proved almost impossible. It appears that categories of glass objects, vessels in particular, have not been studied in any great detail. In the conclusion (section 7.6), we will therefore attempt to frame the collection from Anuradhapura in the light of the wider Indian Ocean trade (see Maps 13 and 14).

7.2 Vessels

A total of 443 fragments of glass vessels, weighing a total of 402.6 g, were recovered from trench ASW2 (see Table 7.2), of which only 31 were classified as diagnostic. The diagnostic sherds fall into two broad chronological bands: firstly, between the first century BC and the first century AD; and secondly, between the ninth and tenth centuries AD. While the earlier group appears to have a provenance in the eastern Mediterranean, the latter group is more diverse, with Egyptian, Syrian and Iranian provenances. Their presence at Anuradhapura closely mirrors the patterns of Mediterranean and West Asian imports of glazed ceramics and selected fine earthenware (see Chapters 5 and 6). Indeed, the continuity of the Indian Ocean trade from the late centuries BC to the early Islamic period is clearly found at Anuradhapura in the form of imports. For purposes of clarity, the following discussion of the diagnostic vessel sherds will be divided into two sections based upon our two chronological bands. I am extremely grateful to two glass specialists from the British Museum, Ralph Pinder-Wilson, formerly of the Department of Oriental Antiquities, and Veronica Tatton-Brown of the Greek and Roman Department for their identifications of the Islamic and Roman glass catalogued below.

Finds of Roman and Hellenistic glass vessels in South Asia are apparently restricted to seven sites: Ai Khanoum, Arikamedu, Begram, Dharanikota, Paithan, Taxila and Ter. However, surely this low count owes more to the nature of its identification and recovery than its extreme scarcity, as the addition of five sherds from ASW2 may prove. The earliest example from the

northwestern region of South Asia is from the Greek city of Ai Khanoum on the Oxus, which was occupied between the fourth and first centuries BC. Rather disappointingly, only a single rim fragment of an open vase with thin vertical walls was recovered (Guillaume and Rougeulle 1987: 15). A later collection of glass vessels from the same region was recovered by Marshall during his excavations at the city of Sirkap at Taxila (Marshall 1951). Sirkap, dating to between 175 BC and AD 100, is located in northern Pakistan (Allchin 1995: 126). At the site Marshall identified eight significant categories of glass: a) sea- or jade-green glass; b) lace glass; c) ribbed glass; d) swirled or marbled glass; e) blue and white cameo; f) mosaic glass; g) colourless translucent glass; h) millefiori glass (Marshall 1951: 685–9). Group a) consisted of five flasks, b) of two fragments of bowl rims, c) of two ribbed bowls, d) of two bottle necks, e) of a single undiagnostic sherd, f) of a single bowl fragment, g) of a single bowl fragment and h) of a single bowl fragment (*ibid.*). Marshall identified all the above categories as Roman imports from the first century AD (*ibid.*: 685). A similar pattern is found in the storerooms of the Kushan city at Begram in Afghanistan (Hackin and Hackin 1939). Among the 'treasure', deposited before the middle of the third century AD (Wheeler 1954: 163), are vessels of millefiori glass [No. 159] (Hackin and Hackin 1939: 29), ribbed ware [No. 177] (*ibid.*: 34) and swirled or marbled glass [No. 311] (*ibid.*: 62), in addition to vessels decorated with semi-detached network surround [No. 192] (*ibid.*: 36) and painted glass [No. 197] (*ibid.*: 37–9). It appears that the majority of this glass was of Syrian or Egyptian manufacture (Wheeler 1954: 163).

A second concentration of finds of Roman glass vessels is found in peninsular India. Wheeler identified two fragments of Roman glass bowls recovered from pre-Arretine levels at Arikamedu in Tamil Nadu (Wheeler 1946: 102). One was from a ribbed bowl of colourless glass, the other from a ribbed bowl of blue glass. Wheeler also noted that a further five ribbed bowls had been previously recovered from the site (*ibid.*). Stern has perhaps identified one of the latter at the Pondicherry Museum, where she examined a fragment of amber-coloured glass (Stern 1991: 117). A further fragment of a ribbed bowl was recovered at Dharanikota (Dikshit 1969: 51). These forms, dated to between the mid and later first century BC (Harden 1987: 189), clearly fall into group c) of Marshall's category and are of eastern Mediterranean provenance. In addition, at the Pondicherry Museum Stern has identified an opaque light-blue dish dating to the first century AD with internal concentric grooves and a transparent blue glass bowl with horizontal ridges halfway down the body, possibly dating to the first century BC (Stern 1991: 117). The former appears to be of a similar shape to some of the flat Arretine dishes, while the latter is of a similar shape to a number of the fine earthenwares of structural period G (see Chapter 6: Unglazed Ceramics). Dikshit has also commented on the recovery of a small mosaic tablet of millefiori glass from Arikamedu, dating to the first century AD (Dikshit 1969: 51). Other Roman imports are represented by the fragmentary rim of blue glass found at Paithan; two rim fragments, one foot fragment and possibly an

unguentarium from Ter (Dikshit 1969; Stern 1991). The latter, with a tooled decoration of embedded white glass, is analogous to similar examples from the eastern Mediterranean dating to the first century AD (Stern 1991: 115).

As is clear from Table 7.3, only five sherds of eastern Mediterranean glass were recovered from the excavations at ASW2. All have been dated to between the first century BC and the first century AD (Tatton-Brown, pers. comm.). Three were recovered from structural period G, one fragment from F and one from B. It seems highly likely that the fragments from periods F and B are redeposited from earlier levels. All three 'in situ' fragments were recovered from contexts representing the destruction of the structures of phase G5. The five sherds, although fragmentary in nature, clearly do not fall into the exotic categories of glassware found at Arikamedu, Begram and Sirkap, but all appear to form part of the later Hellenistic and Early Roman category of colourless and coloured, grooved bowls. Two of the sherds were of a sea-green colour (sfs 6716 and 5689), one was violet (sf 1097) and a further two were colourless (sfs 5306 and 6181). It is interesting to note that the decoration on these bowls appears to be similar to that of the fine earthenware ceramic form designated as Arikamedu type 10 (see Chapter 6: Unglazed Ceramics). Perhaps the latter may be considered as a ceramic skeuomorph of the former? No chemical analysis of the glass from ASW2 has been carried out. There is certainly some confusion as to the origin of certain glass objects within Early Historic South Asia. While Wheeler (1946, 1954) and Marshall (1951) argued for Roman provenance, Lal's analysis of glass from Taxila, Arikamedu, Achchatra, Nalanda and other sites seemed to demonstrate that such examples were of local manufacture (Lal 1952: 22–6). This in turn appears to have been challenged by Wypyski's analysis of five decorated glass roundels from Afghanistan and Pakistan. The roundels, dated to between the second century BC and the first century AD (Boardman *et al.* 1992: 159), fell into three distinct chemical clusters (Wypyski 1992: 281). The first cluster was consistent with manufacture within the Roman Empire, the second with manufacture within the Near East or eastern Mediterranean region, and the third with an as yet unknown source. Analysis of the glass vessel sherds from Anuradhapura would undoubtedly shed further light on this area of early glass trade and manufacture.

Twenty-five fragments of early Islamic glass vessels, our second broad chronological group, were recovered from trench ASW2 (see Table 7.4). While far more numerous than examples of Roman glassware, early Islamic examples have been somewhat neglected. Indeed, it is the case that while hundreds of fragments of such glass vessels have been found in the monastic sites surrounding Anuradhapura, as well as at the city's main port, Mantai, few have been provenanced or dated (Carswell and Prickett 1984: 65; Ratnayake 1984: 119; Ueyama and Nozaki 1993: 97; Wickramagamage *et al.* 1984: 367; Wickramagamage 1984: 114). Similarly, the glass vessels from the excavations at the ports of Banbhore and Siraf are still largely unpublished (Khan 1964: 54; Whitehouse 1968: 18–19). All 25 sherds from

ASW2 have been dated to between the ninth and tenth centuries AD. Two were given a provenance of manufacture in Persia (sfs 273 and 15799), one Syrian (sf 1108) and the remaining 22 Egyptian (Pinder-Wilson, pers. comm.). Where identifiable, the ASW2 glass vessel forms include flasks, toilet flasks, straight-sided beakers and bowls and phials. It is probable that, while bowls, beakers and flasks were used as table and kitchenware, the toilet flasks and phials were mainly for cosmetic uses, a suggestion further strengthened by the presence of sf 214, a glass kohl stick with affinities to those found at Fustat (Pinder-Wilson, pers. comm.). Indeed, it is also possible to agree with Kroger (1995: 33) that, while bowls and beakers were unlikely to have served as transport containers, the other groups of vessels might well have been used for such a purpose. Kroger has also suggested that the glass trade with China was probably overland (*ibid.*: 34). However, as a sherd of imitation lustre ware from Khurasan (sf 746) was found at ASW2 (see Chapter 5: Glazed Ceramics), it is equally possible that this trade may have also been by sea. Further evidence for the trading of glass by sea is provided by the Serce Limani wreck, located off the coast of Turkey. The cargo of this ship, dating to the eleventh century AD, included over 3 tons of early Islamic glass vessels and cullet (i.e. recycled glass waste), where the latter may also have acted as ballast (Bass and van Doorninck 1978: 124).

Analogies can be drawn between the early Islamic glass vessels from ASW2 and those from other contemporary sites. Such sites have a vast geographical range – from China and Transoxiana to the Mediterranean coast. As one of the most fully illustrated catalogues of glass vessels has been published on finds from Nishapur (Kroger 1995), we will use it to compare with the sherds from ASW2. Nishapur is clearly a relevant analogy to draw with Anuradhapura as it flourished at the same time and presumably there were direct or indirect trade links between the two. As indicated by Table 7.4, five recognizable categories of glass vessels were identified. The first of these comprised three sherds from straight-sided bowls, some with inward-folded rims (sfs 106, 1277 and 1301). The latter two had a high bubble content and were green, while the first-mentioned was colourless. The second category comprised five sherds from straight-sided beakers, occasionally with inward- or outward-folded rims (sfs 256, 273, 302, 450 and 2653). Similar cylindrical beakers form a strong component of the glass vessels excavated at Kilwa, situated off the Tanzanian coast (Chittick 1974: 395), and at Nishapur in eastern Iran (Kroger 1995: 56–61). It is also possible to find parallels between the five flask or bottle sherds from ASW2 (sfs 1108, 1356, 1412, 1636 and 1754) and those from Kilwa (Chittick 1974: 402–407) and Nishapur (Kroger 1995: 71–3). Sherds from toilet flasks fell into two groups, those with cylindrical bodies (sfs 145, 328 and 5702) and those with globular ones (sfs 1406 and 5696); again parallels can be drawn with the 'miniature bottles' from Nishapur (*ibid.*: 63–70). As the three sherds of phials (sfs 279, 1660 and 15799) were only represented by neck fragments, it is difficult to make analogies with finds from other sites. It is interesting to note that later developments in Islamic

glass, such as enamelling, are not represented at ASW2, clearly confirming the eleventh-century date for the general removal of the site from performing an international role. However, it should also be stated that, while many of the ASW2 glass vessels have parallels throughout the early Islamic world, there is no evidence of the eighth-century lustre wares as found at Fustat (Pinder-Wilson and Scanlon 1973) or of the cut, applied or stamped decoration as found at Nishapur (Kroger 1995).

All the early Islamic glass fragments are from blown vessels. This glass-making technique has been well described by Harden (1987: 87), however we will again summarize it here. Glass is heated in a crucible on a furnace and then a gob is gathered on the end of a blowpipe. By blowing into the blowpipe the gob is slightly inflated as it is swung, rolled or shaped with a flat surface, tools or mould. The gob is then fully blown, after which it is removed from the blowpipe while a pontil rod is attached to the base of the vessel by a wad of glass so that the mouth and neck of the vessel can be finished. The vessel is then gradually cooled. A simple vessel can be made in as short a time as two or three minutes, with a day to cool, a clear advantage over the time necessary to prepare, shape and fire ceramic vessels. It is interesting to note that sf 5695 has a very visible pontil mark, perhaps suggesting that the vessel belonged to what Kroger has called 'low-cost domestic glass' (Kroger 1995: 23). All the glass fragments from ASW2 were collected and recorded in the hope that they can help us further understand their presence at the site; as Kroger comments of Nishapur, where many sherds were just dumped without being recorded, "thorough documentation might have afforded us a better idea of which vessel types were used in greater numbers" (*ibid.*: 24).

7.2.1 Rims

Special find no: 256 Context: 99se
Stratigraphic Phase: CXV Weight: 3.59g
Description: Inward-folded rim fragment from straight-sided beaker of colourless glass (with patina) with light horizontal ribbing
Diameter: 24cm
Dimensions: 2.1 x 1.0cm; 0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 1412 Context: 109sw
Stratigraphic Phase: CIII Weight: 0.48g
Description: Rim fragment from flask of colourless glass (with patina)
Dimensions: 2 x 2cm; 0.5–0.2cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 106 Context: 27sw
Stratigraphic Phase: C Weight: 1.73g
Description: Inward-folded rim fragment from bowl of colourless glass (with patina)
Diameter: 36cm
Dimensions: 2.8 x 1.5cm; 0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 145 Context: 41sw
Stratigraphic Phase: C Weight: 0.24g

Description: Rim fragment of small toilet flask of colourless glass (with patina)
Diameter: 6cm
Dimensions: 1.2 x 1.1cm; 0.1cm thick
Date: 9th–10th century AD Provenance: Egyptian

Special find no: 302 Context: 111sw
Stratigraphic Phase: XCV Weight: 1.16g
Description: Inward-folded rim fragment from straight-sided beaker of colourless glass (with patina) with light horizontal ribbing
Diameter: 32cm
Dimensions: 3.5 x 2.2cm; 0.15–0.2cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 1277 Context: 600
Stratigraphic Phase: XCV Weight: 0.99g
Description: Rim fragment from straight-sided bowl of green glass. High bubble content.
Dimensions: 3 x 2cm; 0.16cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 1301 Context: 151se
Stratigraphic Phase: XCV Weight: 1.43g
Description: Thickened rim fragment from straight-sided bowl of green glass. High bubble content.
Dimensions: 2 x 2cm; 0.24cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 1636 Context: 256se
Stratigraphic Phase: XCV Weight: 4.5g
Description: Fragment of rim from flask of colourless glass (with patina)
Dimensions: 5 x 5cm; 0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 1754 Context: 272se
Stratigraphic Phase: XCV Weight: 0.3g
Description: Fragment of rim from flask of colourless glass
Dimensions: 1 x 1cm; 0.35–0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian

Special find no: 1108 Context: 76ne
Stratigraphic Phase: XCV Weight: 2.23g
Description: Mouth and neck of large flask of colourless glass (with patina)
Diameter: 4.5cm
Dimensions: 2.2cm length; 2.2–0.2cm thick
Date: 9th–10th century AD Provenance: Syrian or Egyptian
[Fig. 7.1]

Special find no: 1356 Context: 80nw
Stratigraphic Phase: XCV Weight: 3.5g
Description: Fragment of rim from flask of colourless glass (with patina)
Dimensions: 2 x 2cm; 0.8–0.25cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 328 Context: 130nw
Stratigraphic Phase: XCV Weight: 0.38g
Description: Rim fragment from small toilet flask of colourless glass (with patina) Diameter: 6cm
Dimensions: 1.6 x 1.3cm; 0.2cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 450 Context: 134ne
Stratigraphic Phase: XCV Weight: 0.94g
Description: Rim fragment from straight-sided beaker of colourless glass
Dimensions: 2.0 x 1.0cm; 0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian

Special find no: 1406 Context: 87sw
Stratigraphic Phase: XCV Weight: 0.96g
Description: Rim fragment from small globular-bodied toilet flask of colourless glass (with patina)
Diameter: 5cm
Dimensions: 2 x 2cm; 0.1cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 2653 Context: 292ne
Stratigraphic Phase: XCV Weight: 0.49g
Description: Out-turned rim fragment from beaker of colourless glass (with patina)
Dimensions: 2 x 1cm; 0.3cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 5696 Context: 271se
Stratigraphic Phase: XCV Weight: 0.94g
Description: Rim fragment from small globular-bodied toilet flask of colourless glass (with patina)
Diameter: 6cm
Dimensions: 2 x 2cm; 0.1cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 5702 Context: 313sw
Stratigraphic Phase: XCV Weight: 0.44g
Description: Rim fragment from small toilet flask of colourless glass (with patina)
Dimensions: 2 x 2cm; 0.2cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 273 Context: 88nw
Stratigraphic Phase: XCV Weight: 0.46g
Description: Rim fragment from beaker of pale blue glass
Diameter: 16cm
Dimensions: 2.4 x 1.0cm; 0.2cm thick
Date: 9th–10th century AD Provenance: Persian
[Fig. 7.1]

Special find no: 2379 Context: 396se
Stratigraphic Phase: XCI Weight: 0.95g
Description: Rim fragment from straight-sided beaker or bowl of colourless glass
Dimensions: 2 x 2cm; 0.95–0.2cm thick
Date: ? Provenance: ?

Special find no: 6716 Context: 416ne
Stratigraphic Phase: XCI Weight: 1.23g
Description: Rim fragment from a moulded bowl of sea-green glass with horizontal, wheel-cut grooves
Dimensions: 2.5 x 1.1cm – 3 x 3cm; 0.27cm thick
Date: 1st century BC–1st century AD Provenance: Eastern Mediterranean
[Plate 1.3; Fig. 7.1]

7.2.2 Bases

Special find no: 366 Context: 26nw
Stratigraphic Phase: CIV Weight: 5.84g
Description: Concave base from vessel of blue glass (with patina)
Diameter: 4.6cm
Dimensions: 4.4 x 2.9cm; 0.4–0.1cm thick
Date: 9th–10th century AD Provenance: Egyptian

Special find no: 977 Context: 115se
Stratigraphic Phase: XCVI Weight: 27g
Description: Flat base from large vessel of blue glass (with patina)
Dimensions: 5 x 3.5cm; 1cm thick
Date: 9th–10th century AD Provenance: Egyptian
[Fig. 7.1]

Special find no: 5695 Context: 271se
Stratigraphic Phase: XCV Weight: 3.39g

Description: **Concave base from small vessel of greenish glass (with patina). Very visible pontil mark.**
 Dimensions: 3 x 3cm; 0.24cm thick
 Date: 9th–10th century AD Provenance: Egyptian
 [Fig. 7.1]

7.2.3 Necks

Special find no: 279 Context: 87sw
 Stratigraphic Phase: XCV Weight: 3.5g
 Description: **Neck fragment from phial of colourless glass (with patina)**
 Diameter: 1–1.3cm
 Dimensions: 4 cm; 0.01cm thick
 Date: 9th–10th century AD Provenance: Egyptian

Special find no: 93 Context: 24nw
 Stratigraphic Phase: C Weight: 1.69g
 Description: **Neck fragment from vessel of greenish glass**
 Diameter: 1.6cm
 Dimensions: 3.2 x 1.6cm; 0.5cm thick
 Date: 9th–10th century AD Provenance: Egyptian

Special find no: 1660 Context: 287ne
 Stratigraphic Phase: XCV Weight: 1.16g
 Description: **Neck fragment from phial of greenish glass (with patina)**
 Diameter: 1.1cm
 Dimensions: 2 x 2cm; 0.12–0.01cm thick
 Date: 9th–10th century AD Provenance: Egyptian

Special find no: 15799 Context: 600
 Stratigraphic Phase: XCV Weight: 0.9g
 Description: **Neck fragment from phial of blue glass**
 Diameter: 1cm
 Dimensions: 2 x 1cm; 1.2–0.95cm thick
 Date: 9th–10th century AD Provenance: Persian

7.2.5 Undiagnostic body sherds

Special find no: 17 Context: 9nw
 Stratigraphic Phase: CVI Weight: 0.43g
 Description: **With patina**

Special find no: 62 Context: 14nw
 Stratigraphic Phase: CII Weight: 0.22g
 Description: **Dark blue glass**

Special find no: 81 Context: 14se
 Stratigraphic Phase: CII Weight: 0.06g
 Description: **Dark blue glass**

Special find no: 119 Context: 24nw
 Stratigraphic Phase: C Weight: 0.84g
 Description: **With patina**

Special find no: 131 Context: 43ne
 Stratigraphic Phase: XCVI Weight: 0.31g
 Description: **White glass**

Special find no: 153 Context: 51nw
 Stratigraphic Phase: XCIX Weight: 0.25g
 Description: **With patina**

Special find no: 177 Context: 61ne
 Stratigraphic Phase: XCV Weight: 0.42g
 Description: **Pale green glass**

Special find no: 217 Context: 82nw
 Stratigraphic Phase: XCIX Weight: 3.91g
 Description: **Pale green glass**

Special find no: 225 Context: 56nw
 Stratigraphic Phase: XCV Weight: 0.86g
 Description: **With patina**

7.2.4 Decorated body sherds

Special find no: 1097 Context: 12sw
 Stratigraphic Phase: CVIII Weight: 5.63g
 Description: **Body sherd from a moulded bowl of violet glass with horizontal, wheel-cut grooves**
 Dimensions: 4.7 x 1.6cm; 0.4cm thick
 Date: 1st century BC–1st century AD Provenance: Eastern Mediterranean
 [Plate 1.3; Fig. 7.1]

Special find no: 5306 Context: 385se
 Stratigraphic Phase: XCI Weight: 1.23g
 Description: **Body sherd from a moulded vessel of colourless glass with horizontal, wheel-cut grooves**
 Dimensions: 2.2 x 1.4cm; 0.25cm thick
 Date: 1st century BC–1st century AD Provenance: Eastern Mediterranean
 [Plate 1.3]

Special find no: 5689 Context: 73se
 Stratigraphic Phase: XCIII Weight: 0.30g
 Description: **Body sherd from a moulded vessel of sea-green glass with horizontal, wheel-cut grooves**
 Dimensions: 0.9 x 0.8cm
 Date: 1st century BC–1st century AD Provenance: Eastern Mediterranean

Special find no: 6281 Context: 385se
 Stratigraphic Phase: XCI Weight: 0.93g
 Description: **Body sherd from a moulded vessel of colourless glass with horizontal, wheel-cut groove**
 Dimensions: 1.7 x 1.5cm; 0.25cm thick
 Date: 1st century BC–1st century AD Provenance: Eastern Mediterranean

Special find no: 23 Context: 15ne
 Stratigraphic Phase: CXI Weight: 0.66g
 Description: **Dark blue glass**

Special find no: 68 Context: 14sw
 Stratigraphic Phase: CII Weight: 0.33g
 Description: **Pale green glass**

Special find no: 102 Context: 27se
 Stratigraphic Phase: C Weight: 0.25g
 Description: **Pale green glass**

Special find no: 124 Context: 41nw
 Stratigraphic Phase: C Weight: 0.33g
 Description: **Pale green and pale yellow glass**

Special find no: 142 Context: 143se
 Stratigraphic Phase: CI Weight: 1.16g
 Description: **Dark blue glass**

Special find no: 167 Context: 24sw
 Stratigraphic Phase: C Weight: 2.69g
 Description: **Dark blue glass**

Special find no: 213 Context: 126nw
 Stratigraphic Phase: XCV Weight: 2.01g
 Description: **With patina**

Special find no: 222 Context: 82nw
 Stratigraphic Phase: XCIX Weight: 2.0g
 Description: **Dark green glass**

Special find no: 228 Context: 86ne
 Stratigraphic Phase: XCV Weight: 7.32g
 Description: **With patina**

Special find no: 237 Stratigraphic Phase: XCV Description: With patina	Context: 86ne Weight: 1.53g	Special find no: 247 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 90nw Weight: 0.25g
Special find no: 273 Stratigraphic Phase: XCV Description: With patina	Context: 87sw Weight: 1.25g	Special find no: 274 Stratigraphic Phase: XCV Description: With patina	Context: 88ne Weight: 0.55g
Special find no: 278 Stratigraphic Phase: XCV Description: Pale green glass	Context: 86sw Weight: 2.21g	Special find no: 291 Stratigraphic Phase: XCV Description: With patina	Context: 87sw Weight: 1.15g
Special find no: 307 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 78se Weight: 0.98g	Special find no: 314 Stratigraphic Phase: XCVI Description: Pale green glass, with patina	Context: 115se Weight: 2.55g
Special find no: 319 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 78se Weight: 0.19g	Special find no: 330 Stratigraphic Phase: XCV Description: With patina	Context: 130sw Weight: 0.43g
Special find no: 332 Stratigraphic Phase: XCV Description: With patina	Context: 130sw Weight: 0.22g	Special find no: 333 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 130sw Weight: 1.23g
Special find no: 334 Stratigraphic Phase: XCV Description: With patina	Context: 130sw Weight: 1.93g	Special find no: 367 Stratigraphic Phase: CXIV Description: Pale green glass	Context: 4ne Weight: 4.55g
Special find no: 368 Stratigraphic Phase: CXII Description: Pale green glass	Context: 5nw Weight: 0.47g	Special find no: 369 Stratigraphic Phase: CXIV Description: Pale green glass	Context: 4se Weight: 2.18g
Special find no: 371 Stratigraphic Phase: XCV Description: With patina	Context: 126nw Weight: 0.83g	Special find no: 372 Stratigraphic Phase: CXIV Description: Pale green glass	Context: 4sw Weight: 2.25g
Special find no: 373 Stratigraphic Phase: CX Description: Dark blue glass	Context: 19se Weight: 0.12g	Special find no: 374 Stratigraphic Phase: XCV Description: With patina	Context: 88nw Weight: 0.29g
Special find no: 375 Stratigraphic Phase: CVI Description: Pale blue glass	Context: 9se Weight: 0.11g	Special find no: 376 Stratigraphic Phase: CXIV Description: Dark green glass	Context: 4sw Weight: 0.12g
Special find no: 377 Stratigraphic Phase: CXII Description: Pale green glass	Context: 5sw Weight: 0.37g	Special find no: 378 Stratigraphic Phase: CII Description: Dark blue glass	Context: 14sw Weight: 1.52g
Special find no: 379 Stratigraphic Phase: XCV Description: With patina	Context: 111sw Weight: 0.4g	Special find no: 381 Stratigraphic Phase: CXIII Description: Pale green glass, with patina	Context: 17se Weight: 0.12g
Special find no: 382 Stratigraphic Phase: CXIII Description: Pale blue glass	Context: 17se Weight: 0.51g	Special find no: 383 Stratigraphic Phase: CXIII Description: Dark blue glass	Context: 17se Weight: 0.2g
Special find no: 424 Stratigraphic Phase: XCV Description: With patina	Context: 134ne Weight: 3.47g	Special find no: 427 Stratigraphic Phase: XCV Description: With patina	Context: 107nw Weight: 3.64g
Special find no: 434 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 134ne Weight: 0.35g	Special find no: 436 Stratigraphic Phase: XCV Description: With patina	Context: 107nw Weight: 0.38g
Special find no: 454 Stratigraphic Phase: XCV Description: White, with patina	Context: 134ne Weight: 0.84g	Special find no: 485 Stratigraphic Phase: XCV Description: With patina	Context: 134nw Weight: 0.46g
Special find no: 617 Stratigraphic Phase: XCV Description: Dark blue, with patina	Context: 56sw Weight: 0.33g	Special find no: 618 Stratigraphic Phase: XCV Description: With patina	Context: 56sw Weight: 0.11g
Special find no: 619 Stratigraphic Phase: XCV Description: Pale green glass	Context: 56sw Weight: 4.1g	Special find no: 620 Stratigraphic Phase: XCV Description: With patina	Context: 56sw Weight: 0.68g
Special find no: 648 Stratigraphic Phase: XCV Description: With patina	Context: 104sw Weight: 1.03g	Special find no: 652 Stratigraphic Phase: XCV Description: With patina	Context: 184ne Weight: 0.88g

Glass Objects

Special find no: 670 Stratigraphic Phase: XCV Description: With patina	Context: 104sw Weight: 0.19g	Special find no: 683 Stratigraphic Phase: XCV Description: With patina	Context: 142se Weight: 1.91g
Special find no: 684 Stratigraphic Phase: XCV Description: With patina	Context: 142se Weight: 0.66g	Special find no: 709 Stratigraphic Phase: XCV Description: With patina	Context: 182se Weight: 1.62g
Special find no: 712 Stratigraphic Phase: XCV Description: With patina	Context: 201ne Weight: 0.54g	Special find no: 721 Stratigraphic Phase: XCV Description: With patina	Context: 211ne Weight: 3.03g
Special find no: 724 Stratigraphic Phase: XCV Description: With patina	Context: 214ne Weight: 0.49g	Special find no: 729 Stratigraphic Phase: XCV Description: White glass	Context: 214ne Weight: 0.34g
Special find no: 730 Stratigraphic Phase: C Description: Pale green glass, with patina	Context: 41 Weight: 0.85g	Special find no: 731 Stratigraphic Phase: XCVII Description: Dark blue glass	Context: 25sw Weight: 0.19g
Special find no: 732 Stratigraphic Phase: XCVIII Description: Pale green glass, with patina	Context: 48e Weight: 1.55g	Special find no: 734 Stratigraphic Phase: XCVII Description: With patina	Context: 25nw Weight: 1.73g
Special find no: 735 Stratigraphic Phase: C Description: With patina	Context: 24nw Weight: 3.0g	Special find no: 737 Stratigraphic Phase: XCV Description: With patina	Context: 56nw Weight: 0.41g
Special find no: 738 Stratigraphic Phase: XCV Description: Pale green glass	Context: 56nw Weight: 0.75g	Special find no: 740 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 103nw Weight: 3.16g
Special find no: 741 Stratigraphic Phase: XCV Description: With patina	Context: 126nw Weight: 2.06g	Special find no: 742 Stratigraphic Phase: XCVI Description: With patina	Context: 120ne Weight: 1.21g
Special find no: 743 Stratigraphic Phase: XCV Description: Purple glass	Context: 134ne Weight: 1.85g	Special find no: 744 Stratigraphic Phase: XCV Description: Pale green glass	Context: 107nw Weight: 0.49g
Special find no: 767 Stratigraphic Phase: XCV Description: Pale green glass	Context: 134ne Weight: 0.81g	Special find no: 768 Stratigraphic Phase: XCV Description: Pale green glass	Context: 134ne Weight: 0.5g
Special find no: 769 Stratigraphic Phase: XCV Description: Pale green glass	Context: 134ne Weight: 0.49g	Special find no: 785 Stratigraphic Phase: XCV Description: Purple glass	Context: 107nw Weight: 0.8g
Special find no: 839 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 1.11g	Special find no: 840 Stratigraphic Phase: C Description: Dark blue glass	Context: 27sw Weight: 0.07g
Special find no: 842 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 88a Weight: 0.46g	Special find no: 845 Stratigraphic Phase: XCV Description: Black glass	Context: 188sw Weight: 0.15g
Special find no: 846 Stratigraphic Phase: XCV Description: Black glass	Context: 188sw Weight: 0.3g	Special find no: 847 Stratigraphic Phase: XCV Description: Black glass	Context: 188sw Weight: 0.2g
Special find no: 848 Stratigraphic Phase: XCV Description: Dark green glass	Context: 188sw Weight: 0.03g	Special find no: 883 Stratigraphic Phase: XCV Description: Pale green glass	Context: 87se Weight: 0.21g
Special find no: 907 Stratigraphic Phase: XCVII Description: Pale green glass, with patina	Context: 25ne Weight: 0.75g	Special find no: 934 Stratigraphic Phase: XCV Description: Pale green glass	Context: 134se Weight: 0.21g
Special find no: 935 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 188sw Weight: 0.33g	Special find no: 977 Stratigraphic Phase: XCVI Description: Dark blue glass, with patina	Context: 115se Weight: 24.22g
Special find no: 1065 Stratigraphic Phase: C Description: Pale blue glass	Context: 41sw Weight: 1.25g	Special find no: 1066 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 1.46g
Special find no: 1067 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 2.51g	Special find no: 1068 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 2.1g

Special find no: 1069 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.80g	Special find no: 1073 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.75g
Special find no: 1074 Stratigraphic Phase: C Description: White glass	Context: 41sw Weight: 0.21g	Special find no: 1075 Stratigraphic Phase: C Description: White glass	Context: 41sw Weight: 0.12g
Special find no: 1076 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 1.02g	Special find no: 1078 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.14g
Special find no: 1079 Stratigraphic Phase: C Description: Dark blue glass	Context: 41sw Weight: 0.95g	Special find no: 1080 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 2.12g
Special find no: 1081 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 2.1g	Special find no: 1083 Stratigraphic Phase: C Description: White glass	Context: 41sw Weight: 0.95g
Special find no: 1084 Stratigraphic Phase: C Description: White glass	Context: 41sw Weight: 0.94g	Special find no: 1085 Stratigraphic Phase: C Description: Dark blue glass	Context: 41sw Weight: 0.94g
Special find no: 1086 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.81g	Special find no: 1089 Stratigraphic Phase: C Description: Pale blue glass	Context: 41sw Weight: 0.53g
Special find no: 1090 Stratigraphic Phase: CIII Description: Pale blue glass	Context: 94ne Weight: 0.75g	Special find no: 1097 Stratigraphic Phase: CVIII Description: Purple glass	Context: 12sw Weight: 1.04g
Special find no: 1100 Stratigraphic Phase: XCV Description: Clear glass	Context: 56se Weight: 2.5g	Special find no: 1112 Stratigraphic Phase: XCV Description: Clear glass	Context: 76ne Weight: 1.01g
Special find no: 1118 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 151se Weight: 0.51g	Special find no: 1119 Stratigraphic Phase: XCV Description: Yellow glass	Context: 151se Weight: 2.1g
Special find no: 1120 Stratigraphic Phase: XCV Description: White glass	Context: 151se Weight: 0.21g	Special find no: 1121 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 151se Weight: 0.75g
Special find no: 1131 Stratigraphic Phase: XCV Description: Clear glass	Context: 151se Weight: 0.75g	Special find no: 1132 Stratigraphic Phase: XCV Description: Clear glass	Context: 151se Weight: 0.25g
Special find no: 1133 Stratigraphic Phase: XCV Description: Clear glass	Context: 151se Weight: 0.25g	Special find no: 1140 Stratigraphic Phase: CVI Description: Clear glass	Context: 9sw Weight: 1.02g
Special find no: 1141 Stratigraphic Phase: CVI Description: Clear glass	Context: 9sw Weight: 0.95g	Special find no: 1142 Stratigraphic Phase: CVI Description: Clear glass	Context: 9sw Weight: 0.2g
Special find no: 1143 Stratigraphic Phase: CVI Description: Clear glass	Context: 9sw Weight: 0.95g	Special find no: 1146 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.3g
Special find no: 1151 Stratigraphic Phase: C Description: Dark blue glass	Context: 41sw Weight: 0.95g	Special find no: 1152 Stratigraphic Phase: C Description: Pale green glass	Context: 41sw Weight: 0.4g
Special find no: 1157 Stratigraphic Phase: XCV Description: White glass	Context: 111sw Weight: 0.72g	Special find no: 1163 Stratigraphic Phase: Description: Pale green glass	Context: unstratified Weight: 13.02g
Special find no: 1164 Stratigraphic Phase: CVI Description: Pale blue glass	Context: 12sw Weight: 0.17g	Special find no: 1175 Stratigraphic Phase: CVI Description: White glass	Context: 9sw Weight: 0.57g
Special find no: 1177 Stratigraphic Phase: CVI Description: Clear glass	Context: 9ne Weight: 2.02g	Special find no: 1178 Stratigraphic Phase: CVI Description: Pale blue glass	Context: 9ne Weight: 1.62g
Special find no: 1206 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 92nw Weight: 0.3g	Special find no: 1210 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 134ne Weight: 0.44g

Glass Objects

Special find no: 1213 Stratigraphic Phase: CIII Description: White glass	Context: 16sw Weight: 0.65g	Special find no: 1219 Stratigraphic Phase: XCIV Description: White glass	Context: 74sw Weight: 0.42g
Special find no: 1224 Stratigraphic Phase: XCV Description: White glass	Context: 76ne Weight: 0.83g	Special find no: 1225 Stratigraphic Phase: XCV Description: White glass	Context: 76ne Weight: 0.41g
Special find no: 1226 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 76ne Weight: 0.45g	Special find no: 1236 Stratigraphic Phase: XCV Description: Pale green glass	Context: 76ne Weight: 0.19g
Special find no: 1237 Stratigraphic Phase: XCV Description: Pale green glass	Context: 76ne Weight: 0.29g	Special find no: 1242 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 87sw Weight: 0.21g
Special find no: 1247 Stratigraphic Phase: XCVII Description: Pale blue glass	Context: 25nw Weight: 0.2g	Special find no: 1256 Stratigraphic Phase: C Description: White glass	Context: 41se Weight: 0.32g
Special find no: 1257 Stratigraphic Phase: C Description: White glass	Context: 41se Weight: 0.29g	Special find no: 1258 Stratigraphic Phase: C Description: White glass	Context: 41se Weight: 0.14g
Special find no: 1259 Stratigraphic Phase: C Description: White glass	Context: 41se Weight: 0.16g	Special find no: 1262 Stratigraphic Phase: XCV Description: White glass	Context: 107sw Weight: 0.73g
Special find no: 1263 Stratigraphic Phase: XCV Description: White glass	Context: 107sw Weight: 0.6g	Special find no: 1267 Stratigraphic Phase: XCV Description: Pale green glass	Context: 87sw Weight: 0.61g
Special find no: 1268 Stratigraphic Phase: XCV Description: White glass	Context: 87sw Weight: 0.54g	Special find no: 1274 Stratigraphic Phase: XCVI Description: Pale blue glass	Context: 131sw Weight: 1.7g
Special find no: 1277 Stratigraphic Phase: u/s Description: Pale blue glass	Context: u/s Weight: 0.99g	Special find no: 1278 Stratigraphic Phase: u/s Description: Pale blue glass	Context: u/s Weight: 0.37g
Special find no: 1279 Stratigraphic Phase: u/s Description: Pale blue glass	Context: u/s Weight: 0.19g	Special find no: 1280 Stratigraphic Phase: u/s Description: Pale blue glass	Context: u/s Weight: 0.16g
Special find no: 1282 Stratigraphic Phase: XCV Description: Pale green glass	Context: 87nw Weight: 0.79g	Special find no: 1284 Stratigraphic Phase: CIII Description: Pale blue glass	Context: 16nw Weight: 0.51g
Special find no: 1285 Stratigraphic Phase: CIII Description: White glass	Context: 16nw Weight: 3.69g	Special find no: 1287 Stratigraphic Phase: CII Description: Pale blue glass	Context: 14sw Weight: 0.09g
Special find no: 1288 Stratigraphic Phase: CII Description: Pale green glass	Context: 14sw Weight: 0.36g	Special find no: 1289 Stratigraphic Phase: CII Description: Pale green glass	Context: 14sw Weight: 0.19g
Special find no: 1295 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 76ne Weight: 0.21g	Special find no: 1297 Stratigraphic Phase: XCV Description: White glass	Context: 158nw Weight: 1.42g
Special find no: 1301 Stratigraphic Phase: XCV Description: White glass	Context: 151se Weight: 0.26g	Special find no: 1303 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 166se Weight: 0.21g
Special find no: 1305 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.52g	Special find no: 1306 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.74g
Special find no: 1307 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.09g	Special find no: 1308 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.19g
Special find no: 1309 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 88ne Weight: 0.22g	Special find no: 1310 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 88ne Weight: 0.4g
Special find no: 1311 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.36g	Special find no: 1312 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.24g

Special find no: 1313 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.24g	Special find no: 1326 Stratigraphic Phase: CVI Description: Black glass	Context: 9sw Weight: 0.97g
Special find no: 1333 Stratigraphic Phase: XCV Description: Pale green glass	Context: 100ne Weight: 0.81g	Special find no: 1343 Stratigraphic Phase: XCV Description: Black glass	Context: 87nw Weight: 0.17g
Special find no: 1346 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.4g	Special find no: 1347 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 88ne Weight: 0.21g
Special find no: 1348 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 88ne Weight: 0.12g	Special find no: 1349 Stratigraphic Phase: XCV Description: White glass	Context: 88ne Weight: 0.65g
Special find no: 1350 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 88ne Weight: 0.45g	Special find no: 1351 Stratigraphic Phase: XCV Description: Pale green glass	Context: 88ne Weight: 0.21g
Special find no: 1352 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 88ne Weight: 0.66g	Special find no: 1360 Stratigraphic Phase: XCV Description: Clear glass	Context: 80nw Weight: 2.74g
Special find no: 1361 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 80nw Weight: 0.91g	Special find no: 1362 Stratigraphic Phase: XCV Description: Pale green glass	Context: 80nw Weight: 0.56g
Special find no: 1364 Stratigraphic Phase: XCV Description: Clear glass	Context: 42nw Weight: 0.11g	Special find no: 1365 Stratigraphic Phase: XCV Description: Clear glass	Context: 42nw Weight: 0.16g
Special find no: 1366 Stratigraphic Phase: XCV Description: Pale green glass	Context: 42nw Weight: 0.21g	Special find no: 1367 Stratigraphic Phase: XCV Description: White glass	Context: 42nw Weight: 0.41g
Special find no: 1368 Stratigraphic Phase: XCV Description: Clear glass	Context: 80sw Weight: 0.3g	Special find no: 1369 Stratigraphic Phase: XCV Description: Pale green glass	Context: 80sw Weight: 0.68g
Special find no: 1370 Stratigraphic Phase: XCV Description: Pale green glass	Context: 80sw Weight: 1.09g	Special find no: 1371 Stratigraphic Phase: XCV Description: Pale green glass	Context: 80sw Weight: 0.95g
Special find no: 1372 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.35g	Special find no: 1373 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.12g
Special find no: 1382 Stratigraphic Phase: CVI Description: Pale blue glass	Context: 9se Weight: 0.18g	Special find no: 1403 Stratigraphic Phase: XCVI Description: Pale green glass	Context: 120se Weight: 0.44g
Special find no: 1406 Stratigraphic Phase: XCV Description: Clear glass	Context: 87sw Weight: 0.96g	Special find no: 1407 Stratigraphic Phase: XCV Description: Pale green glass	Context: 123se Weight: 1.97g
Special find no: 1409 Stratigraphic Phase: XCV Description: Clear glass	Context: 123se Weight: 0.21g	Special find no: 1410 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 123se Weight: 0.24g
Special find no: 1413 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 134ne Weight: 0.87g	Special find no: 1414 Stratigraphic Phase: XCV Description: Pale green glass	Context: 134ne Weight: 0.28g
Special find no: 1417 Stratigraphic Phase: XCVI Description: Pale green glass	Context: 59sw Weight: 0.4g	Special find no: 1418 Stratigraphic Phase: XCVI Description: Yellow glass	Context: 59sw Weight: 0.12g
Special find no: 1419 Stratigraphic Phase: XCV Description: Pale green glass	Context: 56sw Weight: 0.92g	Special find no: 1420 Stratigraphic Phase: XCV Description: Pale green glass	Context: 56sw Weight: 0.75g
Special find no: 1422 Stratigraphic Phase: XCVI Description: Clear glass	Context: 131se Weight: 0.31g	Special find no: 1423 Stratigraphic Phase: XCV Description: Pale green glass	Context: 157se Weight: 0.77g
Special find no: 1424 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 157se Weight: 0.35g	Special find no: 1425 Stratigraphic Phase: XCV Description: Clear glass	Context: 157se Weight: 0.23g

Glass Objects

Special find no: 1428 Stratigraphic Phase: XCV Description: Pale green glass	Context: 78se Weight: 1.23g	Special find no: 1429 Stratigraphic Phase: XCV Description: Clear glass	Context: 87sw Weight: 0.71g
Special find no: 1461 Stratigraphic Phase: C Description: Clear glass	Context: 41sw Weight: 0.04g	Special find no: 1462 Stratigraphic Phase: C Description: Pale blue glass	Context: 41sw Weight: 0.44g
Special find no: 1463 Stratigraphic Phase: C Description:	Context: 41sw Weight: 0.35g	Special find no: 1464 Stratigraphic Phase: C Description:	Context: 41sw Weight: 0.4g
Special find no: 1503 Stratigraphic Phase: XCV Description: Clear glass	Context: 254se Weight: 0.31g	Special find no: 1511 Stratigraphic Phase: XCV Description: Clear glass	Context: 253nw Weight: 0.32g
Special find no: 1535 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 252sw Weight: 1.01g	Special find no: 1544 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 261nw Weight: 0.19g
Special find no: 1555 Stratigraphic Phase: XCV Description: Pale green glass	Context: 253nw Weight: 0.95g	Special find no: 1558 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 253nw Weight: 0.51g
Special find no: 1562 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 262se Weight: 0.76g	Special find no: 1567 Stratigraphic Phase: XCV Description: Clear glass	Context: 262se Weight: 0.17g
Special find no: 1569 Stratigraphic Phase: XCV Description: Patina	Context: 262se Weight: 2.38g	Special find no: 1598 Stratigraphic Phase: XCV Description: Clear glass	Context: 273se Weight: 0.91g
Special find no: 1604 Stratigraphic Phase: XCV Description: Patina	Context: 271se Weight: 1.67g	Special find no: 1605 Stratigraphic Phase: XCV Description: Clear glass	Context: 273se Weight: 0.26g
Special find no: 1606 Stratigraphic Phase: XCV Description: Clear glass	Context: 271se Weight: 0.4g	Special find no: 1612 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 263nw Weight: 7.79g
Special find no: 1619 Stratigraphic Phase: XCV Description: White glass	Context: 256se Weight: 0.25g	Special find no: 1620 Stratigraphic Phase: XCV Description: Patina	Context: 256se Weight: 0.52g
Special find no: 1621 Stratigraphic Phase: XCV Description: White glass	Context: 256se Weight: 0.91g	Special find no: 1627 Stratigraphic Phase: XCV Description: Patina	Context: 256se Weight: 0.14g
Special find no: 1630 Stratigraphic Phase: XCV Description: Clear glass, in three pieces	Context: 271se Weight: 2.74g	Special find no: 1633 Stratigraphic Phase: XCV Description: White glass	Context: 256se Weight: 0.1g
Special find no: 1650 Stratigraphic Phase: XCV Description: White glass	Context: 286ne Weight: 0.14g	Special find no: 1697 Stratigraphic Phase: XCIII Description: White glass	Context: 304ne Weight: 0.57g
Special find no: 1708 Stratigraphic Phase: XCIII Description: Pale blue glass	Context: 304ne Weight: 1.02g	Special find no: 1732 Stratigraphic Phase: XCV Description: With patina.	Context: 290ne Weight: 0.06g
Special find no: 1767 Stratigraphic Phase: XCV Description: Patina	Context: 316ne Weight: 0.62g	Special find no: 1792 Stratigraphic Phase: XCV Description: Yellow glass	Context: 316ne Weight: 0.26g
Special find no: 1793 Stratigraphic Phase: XCV Description: Yellow glass	Context: 316ne Weight: 1.99g	Special find no: 1794 Stratigraphic Phase: XCV Description: Dark green glass	Context: 316ne Weight: 0.21g
Special find no: 1804 Stratigraphic Phase: XCV Description: Clear glass	Context: 325ne Weight: 2.1g	Special find no: 1813 Stratigraphic Phase: XCV Description: Patina	Context: 316ne Weight: 0.33g
Special find no: 1820 Stratigraphic Phase: XCV Description: Clear glass	Context: 316ne Weight: 0.21g	Special find no: 1835 Stratigraphic Phase: XCV Description: Patina	Context: 316ne Weight: 0.26g
Special find no: 1838 Stratigraphic Phase: XCV Description: Patina	Context: 320ne Weight: 0.1g	Special find no: 1844 Stratigraphic Phase: XCV Description: Clear glass	Context: 331se Weight: 1.69g

Special find no: 1850 Stratigraphic Phase: XCV Description: Clear glass	Context: 326ne Weight: 0.53g	Special find no: 1861 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.27g
Special find no: 1866 Stratigraphic Phase: XCV Description: Patina	Context: 331se Weight: 0.41g	Special find no: 1869 Stratigraphic Phase: XCV Description: Black glass	Context: 331se Weight: 0.3g
Special find no: 1872 Stratigraphic Phase: XCV Description: Patina	Context: 331se Weight: 1.05g	Special find no: 1876 Stratigraphic Phase: XCV Description: Patina	Context: 329se Weight: 0.49g
Special find no: 1880 Stratigraphic Phase: XCV Description: Patina	Context: 332se Weight: 0.13g	Special find no: 1892 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 332se Weight: 0.19g
Special find no: 1896 Stratigraphic Phase: XCV Description: Patina	Context: 332se Weight: 1.03g	Special find no: 1900 Stratigraphic Phase: XCV Description: Pale green glass	Context: 324ne Weight: 0.12g
Special find no: 1902 Stratigraphic Phase: XCV Description: Patina	Context: 272se Weight: 0.01g	Special find no: 1906 Stratigraphic Phase: XCV Description: Pale green glass	Context: 272se Weight: 0.27g
Special find no: 1907 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.47g	Special find no: 1908 Stratigraphic Phase: XCV Description: Pale green glass	Context: 324ne Weight: 0.97g
Special find no: 1930 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 73se Weight: 0.4g	Special find no: 1953 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 334ne Weight: 0.21g
Special find no: 1954 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 334ne Weight: 0.3g	Special find no: 1965 Stratigraphic Phase: XCV Description: Patina	Context: 322aw Weight: 0.5g
Special find no: 1973 Stratigraphic Phase: XCV Description: Patina	Context: 334ne Weight: 1.6g	Special find no: 1974 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.09g
Special find no: 1978 Stratigraphic Phase: XCV Description: Clear glass, two pieces	Context: 334ne Weight: 0.28g	Special find no: 1995 Stratigraphic Phase: XCV Description: Yellow glass	Context: 320ne Weight: 0.14g
Special find no: 2067 Stratigraphic Phase: XCIII Description: White glass	Context: 304ne Weight: 0.08g	Special find no: 2068 Stratigraphic Phase: XCIII Description: White glass	Context: 304ne Weight: 0.2g
Special find no: 2069 Stratigraphic Phase: XCIII Description: White glass	Context: 304ne Weight: 0.11g	Special find no: 2070 Stratigraphic Phase: XCIII Description: Patina	Context: 304ne Weight: 0.2g
Special find no: 2124 Stratigraphic Phase: XCIII Description: Clear glass	Context: 305aw Weight: 0.2g	Special find no: 2136 Stratigraphic Phase: XCV Description: Patina	Context: 285ne Weight: 0.83g
Special find no: 2137 Stratigraphic Phase: XCV Description: Patina	Context: 285ne Weight: 4.18g	Special find no: 2147 Stratigraphic Phase: XCIII Description: Patina	Context: 306se Weight: 0.07g
Special find no: 2148 Stratigraphic Phase: XCIII Description: White glass	Context: 306se Weight: 0.19g	Special find no: 2151 Stratigraphic Phase: XCV Description: Patina	Context: 301ne Weight: 2.2g
Special find no: 2152 Stratigraphic Phase: XCV Description: Patina	Context: 301ne Weight: 0.75g	Special find no: 2171 Stratigraphic Phase: XCV Description: Pale green glass	Context: 324ne Weight: 0.88g
Special find no: 2203 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.01g	Special find no: 2204 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.92g
Special find no: 2205 Stratigraphic Phase: XCV Description: Patina	Context: 320ne Weight: 0.03g	Special find no: 2206 Stratigraphic Phase: XCV Description: Clear glass	Context: 320ne Weight: 0.21g
Special find no: 2217 Stratigraphic Phase: XCV Description: Clear glass	Context: 332ne Weight: 1.0g	Special find no: 2223 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 324ne Weight: 0.19g

Glass Objects

Special find no: 2375 Stratigraphic Phase: XCV Description: Clear glass, two pieces	Context: 325ne Weight: 2.3g	Special find no: 2376 Stratigraphic Phase: XCV Description: Pale blue and clear glass, five pieces	Context: 325ne Weight: 1.2g
Special find no: 2380 Stratigraphic Phase: XCI Description: Clear glass, four pieces	Context: 396se Weight: 0.3g	Special find no: 2382 Stratigraphic Phase: XCIII Description: Pale green glass	Context: 379sw Weight: 0.16g
Special find no: 2409 Stratigraphic Phase: XCV Description: Clear glass	Context: 327ne Weight: 0.42g	Special find no: 2513 Stratigraphic Phase: XCIII Description: Pale blue glass	Context: 306sw Weight: 0.23g
Special find no: 2525 Stratigraphic Phase: XCIII Description: Dark blue glass	Context: 306sw Weight: 0.7g	Special find no: 2546 Stratigraphic Phase: XCIII Description: Dark green glass	Context: 345sw Weight: 3.76g
Special find no: 2558 Stratigraphic Phase: XCIII Description: Clear glass	Context: 73sw Weight: 0.39g	Special find no: 2583 Stratigraphic Phase: XCIII Description: Pale blue glass	Context: 73sw Weight: 0.3g
Special find no: 2597 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 292ne Weight: 0.03g	Special find no: 2599 Stratigraphic Phase: XCIII Description: Clear glass	Context: 73ne Weight: 0.01g
Special find no: 2604 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 292ne Weight: 0.44g	Special find no: 2608 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.18g
Special find no: 2612 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.12g	Special find no: 2613 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.01g
Special find no: 2619 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.22g	Special find no: 2625 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.4g
Special find no: 2652 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 292ne Weight: 0.01g	Special find no: 2653 Stratigraphic Phase: XCV Description: Patina	Context: 292ne Weight: 0.2g
Special find no: 2662 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.03g	Special find no: 2663 Stratigraphic Phase: XCV Description: Patina	Context: 292ne Weight: 0.28g
Special find no: 2671 Stratigraphic Phase: XCV Description: Clear glass	Context: 292ne Weight: 0.02g	Special find no: 2681 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 294ne Weight: 0.02g
Special find no: 2686 Stratigraphic Phase: XCV Description: Clear glass	Context: 204ne Weight: 0.25g	Special find no: 2687 Stratigraphic Phase: XCV Description: Clear glass	Context: 294ne Weight: 0.01g
Special find no: 2692 Stratigraphic Phase: XCV Description: White glass	Context: 294ne Weight: 0.07g	Special find no: 2701 Stratigraphic Phase: XCV Description: Clear glass	Context: 294ne Weight: 0.01g
Special find no: 2710 Stratigraphic Phase: XCV Description: Clear glass	Context: 294ne Weight: 0.03g	Special find no: 2711 Stratigraphic Phase: XCV Description: Clear glass	Context: 294ne Weight: 0.02g
Special find no: 2720 Stratigraphic Phase: XCV Description: Clear glass	Context: 294ne Weight: 0.11g	Special find no: 2727 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 294ne Weight: 0.17g
Special find no: 2747 Stratigraphic Phase: XCV Description: Yellow glass	Context: 368aw Weight: 0.74g	Special find no: 2765 Stratigraphic Phase: XCV Description: Pale green glass	Context: 294ne Weight: 2.08g
Special find no: 2770 Stratigraphic Phase: XCV Description: Clear glass	Context: 368ne Weight: 0.13g	Special find no: 2941 Stratigraphic Phase: XCII Description: Clear glass	Context: 365aw Weight: 0.11g
Special find no: 5061 Stratigraphic Phase: XCIII Description: Red glass	Context: 306ne Weight: 0.21g	Special find no: 5254 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 296ne Weight: 1.11g
Special find no: 5256 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 296ne Weight: 0.21g	Special find no: 5262 Stratigraphic Phase: XCV Description: Pale green glass	Context: 76ne Weight: 0.76g

Special find no: 5300 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 313sw Weight: 0.35g	Special find no: 5303 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 313sw Weight: 0.37g
Special find no: 5304 Stratigraphic Phase: XCV Description: White glass	Context: 313sw Weight: 0.19g	Special find no: 5306 Stratigraphic Phase: XCI Description: Clear glass	Context: 385se Weight: 1.23g
Special find no: 5311 Stratigraphic Phase: u/s Description: Clear glass	Context: u/s Weight: 0.32g	Special find no: 5671 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 313sw Weight: 0.25g
Special find no: 5672 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 313sw Weight: 0.16g	Special find no: 5673 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 313sw Weight: 0.11g
Special find no: 5674 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 290ne Weight: 0.04g	Special find no: 5675 Stratigraphic Phase: XCV Description: Clear glass	Context: 394sw Weight: 0.28g
Special find no: 5676 Stratigraphic Phase: XCV Description: Pale green glass	Context: 394sw Weight: 0.92g	Special find no: 5677 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 313sw Weight: 2.96g
Special find no: 5678 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 313sw Weight: 1.24g	Special find no: 5679 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 313sw Weight: 0.43g
Special find no: 5680 Stratigraphic Phase: XCV Description: White glass	Context: 313sw Weight: 0.41g	Special find no: 5685 Stratigraphic Phase: XCIII Description: Pale blue glass	Context: 374sw Weight: 0.12g
Special find no: 5686 Stratigraphic Phase: XCIII Description: Clear glass	Context: 374sw Weight: 0.35g	Special find no: 5687 Stratigraphic Phase: XCI Description: Clear glass	Context: 385 Weight: 0.11g
Special find no: 5688 Stratigraphic Phase: XCI Description: Clear glass	Context: 425sw Weight: 0.61g	Special find no: 5689 Stratigraphic Phase: XCIII Description: With patina	Context: 73se Weight: 0.3g
Special find no: 5690 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 283ne Weight: 0.22g	Special find no: 5691 Stratigraphic Phase: XCV Description: White glass with patina	Context: 283ne Weight: 0.26g
Special find no: 5692 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 283ne Weight: 0.04g	Special find no: 5693 Stratigraphic Phase: XCV Description: Clear glass, with patina	Context: 271se Weight: 0.72g
Special find no: 5694 Stratigraphic Phase: XCV Description: White glass with patina	Context: 271se Weight: 0.53g	Special find no: 5697 Stratigraphic Phase: XCV Description: Pale blue glass, with patina	Context: 271se Weight: 1.06g
Special find no: 5698 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 271se Weight: 0.15g	Special find no: 5700 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 313nw Weight: 0.71g
Special find no: 5701 Stratigraphic Phase: XCV Description: Pale blue glass, with patina	Context: 313nw Weight: 1.45g	Special find no: 5730 Stratigraphic Phase: XCIII Description: Yellow glass	Context: 363ne Weight: 0.02g
Special find no: 5731 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 359nw Weight: 0.03g	Special find no: 5774 Stratigraphic Phase: XCV Description: Pale green glass	Context: 367nw Weight: 0.37g
Special find no: 5775 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 367sw Weight: 0.19g	Special find no: 5786 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 334ne Weight: 0.35g
Special find no: 5801 Stratigraphic Phase: XCV Description: Dark green glass, with patina	Context: 324ne Weight: 0.26g	Special find no: 5802 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 324ne Weight: 0.27g
Special find no: 5807 Stratigraphic Phase: XCIII Description: Pale blue glass, with patina	Context: 345sw Weight: 0.08g	Special find no: 5862 Stratigraphic Phase: XCIII Description: White glass	Context: 369ne Weight: 1.17g
Special find no: 6197 Stratigraphic Phase: LXXXVI Description: Pale blue glass	Context: 376nw Weight: 0.12g	Special find no: 6200 Stratigraphic Phase: XCI Description: Dark blue glass	Context: 385se Weight: 2.38g

Glass Objects

Special find no: 6223 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 313sw Weight: 0.44g	Special find no: 6238 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 313sw Weight: 0.84g
Special find no: 6239 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 313sw Weight: 0.21g	Special find no: 6281 Stratigraphic Phase: XCI Description: Clear glass	Context: 385se Weight: 0.93g
Special find no: 6309 Stratigraphic Phase: XCV Description: Pale green glass	Context: 394sw Weight: 0.45g	Special find no: 6315 Stratigraphic Phase: XCV Description: Pale blue glass	Context: 394sw Weight: 0.13g
Special find no: 6362 Stratigraphic Phase: XCI Description: Dark blue glass	Context: 406sw Weight: 0.37g	Special find no: 6499 Stratigraphic Phase: XCI Description: Red glass	Context: 417nw Weight: 0.04g
Special find no: 6511 Stratigraphic Phase: LXXXVIII Description: Clear glass	Context: 409nw Weight: 0.88g	Special find no: 6800 Stratigraphic Phase: LXXXVII Description: Dark blue glass	Context: 437se Weight: 1.09g
Special find no: 6948 Stratigraphic Phase: LXXXI Description: Pale blue glass	Context: 487ne Weight: 1.65g	Special find no: 7027 Stratigraphic Phase: LXXV Description: Dark blue glass	Context: 492se Weight: 0.8g
Special find no: 7153 Stratigraphic Phase: LXXV Description: White glass, with patina	Context: 494ne Weight: 0.26g	Special find no: 8053 Stratigraphic Phase: XCIII Description: White glass, with patina	Context: 309nw Weight: 1.26g
Special find no: 8105 Stratigraphic Phase: LXXV Description: Pale green glass	Context: 492se Weight: 0.13g	Special find no: 8106 Stratigraphic Phase: XCIII Description: White glass, with patina	Context: 358se Weight: 0.05g
Special find no: 8633 Stratigraphic Phase: XCII Description: Clear glass	Context: 365 Weight: 0.86g	Special find no: 8688 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 334ne Weight: 1.35g
Special find no: 8690 Stratigraphic Phase: XCIII Description: Pale green glass	Context: 370sw Weight: 0.02g	Special find no: 8691 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 158nw Weight: 10.71g
Special find no: 8692 Stratigraphic Phase: XCII Description: Dark green (?) glass, with patina	Context: 366sw Weight: 0.22g	Special find no: 8693 Stratigraphic Phase: XCV Description: Pink glass, with patina	Context: 354nw Weight: 0.35g
Special find no: 8694 Stratigraphic Phase: XCIII Description: Clear glass, with patina	Context: 358se Weight: 1.12g	Special find no: 8689 Stratigraphic Phase: CIV Description: White glass, with patina	Context: 26sw Weight: 0.94g
Special find no: 8818 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 42sw Weight: 0.05g	Special find no: 8819 Stratigraphic Phase: XCIII Description: Black glass	Context: 180nw Weight: 1.2g
Special find no: 8820 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 325sw Weight: 0.15g	Special find no: 8821 Stratigraphic Phase: XCV Description: White glass, with patina	Context: 149sw Weight: 0.14g
Special find no: 15794 Stratigraphic Phase: LXXXV Description: Dark blue glass	Context: 408sw Weight: 0.2g	Special find no: 15795 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 600 Weight: 1.24g
Special find no: 15796 Stratigraphic Phase: XCV Description: Pale green glass	Context: 600 Weight: 0.79g	Special find no: 15799 Stratigraphic Phase: XCV Description: Dark blue glass, with patina	Context: 600 Weight: 0.41g
Special find no: 15854 Stratigraphic Phase: XCV Description: Dark blue glass	Context: 600 Weight: 1.15g	Special find no: 16245 Stratigraphic Phase: XCV Description: Pale green glass, with patina	Context: 600 Weight: 0.98g

7.3 Other objects

With the exception of the 4,897 beads, there were 98 finds of glass objects other than vessels or unformed lumps or ingots of glass (see Table 7.5). Eight categories of other glass objects were also classified, leaving glass beads as a separate category (see section 7.4 below). The categories defined were hair curls, ear reels, kohl sticks,

rings, plain bangles, spiral bangles, inlaid bangles and broken or unidentified objects. With the exception of a single fragment of ring found in period I and five in period G, the majority of finds of glass objects are restricted to period B, period C, D & E and period F. The objects make up a noticeably small weight category when

compared with those of glass vessels, beads and unformed glass.

7.3.1 Hair curls

These two special finds appear to be unique within the archaeology of Sri Lanka, and although sf 991 was recovered from period C, D & E, it seems likely that it originated from a similar context to sf 633 – that is, part of the pillared hall of period F. Both examples appear to be circular hair curls of dark blue glass from a Buddha figure. Both have circular holes in their undersides, presumably for attachment to a rod or dowel on the figure's head. It is possible that the figure was of glass, however it is equally possible that it belonged to a composite construction. Its presence in deposits dating to the first half of the first millennium AD suggests that South Asian glass-working was sufficiently advanced to produce such objects from moulds.

Special find no: 633 Context: 176nw
Stratigraphic Phase: XCII Weight: 1.98g
Description: Complete circular hair curl of dark blue glass. With patina.
Dimensions 1.4cm base diameter, 0.9cm thick
Comments: Circular hole in base (0.25cm diameter, 0.8cm deep) for attachment to rod.
[Plate 7.2; Fig. 7.4]

Special find no: 991 Context: 88ne
Stratigraphic Phase: XCV Weight: 0.89g
Description: Incomplete (50%) circular hair curl of dark blue glass. With patina.
Dimensions 1.4cm base diameter, 0.9cm thick
Comments: Circular hole in base (0.25cm diameter, 0.8cm deep) for attachment to rod.

7.3.2 Ear reel

This object was most probably cast and may be compared with the ear reel from the Bhir Mound at Taxila (Marshall 1951: 690). Indeed, glass ear reels have been found at a variety of sites in both North and South India, dating from Mauryan times to the end of the Satavahana period (Dikshit 1969: 15–17). It may, however, represent a glass weight as it appears to be similar to Gaur's examples from Atranjikhera (Gaur 1983: 421–2).

Special find no: 5061 Context: 306se
Stratigraphic Phase: XCIII Weight: 1.16g
Description: Incomplete (50%) circular ear reel (?) of opaque dark red glass. With patina.
Dimensions: 1.3cm diameter, 1.1cm thick

7.3.3 Kohl stick

I am very grateful to Ralph Pinder-Wilson for identifying the function of this object. Similar objects have been found sitting within small toilet flasks at Fustat in Egypt (Pinder-Wilson, pers. comm.).

Special find no: 214 Context: 74sw
Stratigraphic Phase: XCIV Weight: 0.89g
Description: Incomplete kohl stick of sea-green glass.
Dimensions 2cm long, 0.45cm wide and 0.3cm thick
Comments: D-shaped cross-section.
[Fig. 7.4]

7.3.4 Rings

Seventeen fragments and one complete ring were recovered from the ASW2 excavations. Their stratigraphic distribution within the trench is quite wide, with a single fragment in period I, five in period G, three in period F, eight in period C, D & E and one in period B. The colours present – light blue, light green, dark blue, red, clear and amber – are noticeably less varied than those found in either bangles or beads.

Special find no: 779 Context: 123ne
Stratigraphic Phase: XCV Weight: 0.94g
Description: Incomplete finger ring of light blue glass.
Dimensions: 25% survives; 0.9cm diameter, 0.25cm wide; 0.2cm thick
Comments: D-shaped cross-section.

Special find no: 1186 Context: 25ne
Stratigraphic Phase: XCVII Weight: 0.13g
Description: Incomplete finger ring of light green glass.
Dimensions: 30% survives; 0.6cm diameter, 0.15cm wide, 0.15cm thick
Comments: D-shaped cross-section.

Special find no: 1402 Context: 108nw
Stratigraphic Phase: LXXIII Weight: 0.23g
Description: Incomplete finger ring of dark blue glass.
Dimensions: 20% survives; 1.66cm diameter, 0.36cm wide, 0.23cm thick
Comments: D-shaped cross-section.
Special find no: 1698 Context: 304ne
Stratigraphic Phase: XCIII Weight: 0.23g
Description: Incomplete finger ring of light blue-green glass.
Dimensions: 20% survives; 1cm diameter, 0.3cm wide; 0.25cm thick
Comments: Circular cross-section.

Special find no: 2364 Context: 324ne
Stratigraphic Phase: XCV Weight: 0.13g
Description: Incomplete finger ring of light green glass.
Dimensions: 0.28cm wide; 0.26cm thick
Comments: D-shaped cross-section.

Special find no: 2516 Context: 344nw
Stratigraphic Phase: XCV Weight: 0.5g
Description: Incomplete finger ring of light blue-green glass.
Dimensions: 0.5cm wide; 0.3cm thick
Comments: D-shaped cross-section.

Special find no: 5364 Context: 416ne
Stratigraphic Phase: XCI Weight: 0.24g
Description: Incomplete finger ring of light green glass.
Dimensions: 0.24cm wide; 0.24cm thick
Comments: D-shaped cross-section.

Special find no: 6016 Context: 364ne
Stratigraphic Phase: XCII Weight: 0.88g
Description: Incomplete finger ring of red glass.
Dimensions: 0.38cm wide; 0.38cm thick
Comments: D-shaped cross-section.

Special find no: 6017 Context: 365nw
Stratigraphic Phase: XCII Weight: 0.28g
Description: Incomplete finger ring of red glass.
Dimensions: 0.31cm wide; 0.31cm thick
Comments: D-shaped cross-section.

Special find no: 6360 Context: 390se
Stratigraphic Phase: XCV Weight: 0.3g
Description: Incomplete finger ring of dark blue glass.
Dimensions: 0.31cm wide, 0.31cm thick
Comments: D-shaped cross-section.

Special find no: 6519 Context: 409nw
Stratigraphic Phase: XCV Weight: 1.25g
Description: Incomplete finger ring of clear glass.
Dimensions: 0.28cm wide, 0.45cm thick

Comments: **D-shaped cross-section.**

Special find no: **6623** Context: **426ne**
 Stratigraphic Phase: **XCV** Weight: **2.87g**
 Description: **Incomplete finger ring of clear glass.**
 Dimensions: **0.6cm wide; 0.6cm thick**
 Comments: **D-shaped cross-section.**

Special find no: **6726** Context: **425sw**
 Stratigraphic Phase: **XCI** Weight: **2.87g**
 Description: **Incomplete or uncompleted finger ring of amber glass.**
 Dimensions: **50% survives; unclear diameter, 0.1–0.3cm wide; 0.1–0.3cm thick**
 Comments: **Varying cross-section.**
 [Fig. 7.4]

Special find no: **7148** Context: **494ne**
 Stratigraphic Phase: **LXXV** Weight: **0.81g**
 Description: **Complete finger ring of light blue glass.**
 Dimensions: **100% survives; 0.9cm diameter, 0.3cm wide; 0.25cm thick**
 Comments: **D-shaped cross-section.**

Special find no: **10148** Context: **635nw**
 Stratigraphic Phase: **LXXIII** Weight: **0.23g**
 Description: **Incomplete finger ring of light blue glass.**
 Dimensions: **20% survives; 1.66cm diameter, 0.36cm wide, 0.23cm thick**
 Comments: **D-shaped cross-section.**

Special find no: **10238** Context: **714sw**
 Stratigraphic Phase: **LIV** Weight: **0.36g**
 Description: **Incomplete finger ring of dark blue glass.**
 Dimensions: **25% survives; 2.4cm diameter, 0.37cm wide, 0.22cm thick**
 Comments: **D-shaped cross-section**

Special find no: **15015** Context: **600**
 Stratigraphic Phase: **XCV** Weight: **0.11g**
 Description: **Incomplete finger ring of dark blue glass.**
 Dimensions: **25% survives; 0.45cm wide, 0.23cm thick**
 Comments: **D-shaped cross-section**

Special find no: **15861** Context: **630nw**
 Stratigraphic Phase: **LXXVI** Weight: **0.23g**
 Description: **Incomplete finger ring of pale green glass.**
 Dimensions: **50% survives; 1.4cm diameter, 0.28cm wide, 0.23cm thick**
 Comments: **D-shaped cross-section**

7.3.5 Bangles

The bangles from ASW2 can be subdivided into three groups: plain bangles, twisted bangles and decorated bangles. While plain, monochrome bangles appear to be found throughout periods F to B, it is interesting to note that spiral bangles are a relatively early phenomenon and inlaid ones a later one. This general pattern appears to be confirmed elsewhere. Similar spiral or twisted bangles were found as early as the first century AD in the valley of Taxila (Marshall 1951) while, when polychrome bangles clearly date from the beginning of the millennium (Dikshit 1969: 34), many are evidently of Satavahana date. Analogies with the latter are probably supported by the similarities between the ASW2 inlaid examples and those from Nevasa (ibid.: fig. 10.14).

7.3.5.1 Plain bangles

Fifty-four fragments of plain glass bangles were recovered from trench ASW2. They appear to be a relatively late phenomenon as 4 of them were recovered from period F, 37 from period C, D & E, 12 from period B and 1 from period A. Typically they were

manufactured in dark blue or black glass, although there was one light green, one dark green, two light blue, one light turquoise and one yellow example. Special find 611 represented a slight anomaly to the classification as it was a hollow tube of light blue glass. While the latter may be similar to late examples from Abhayagiri (Wickramagamage *et al.* 1984: 367) and the Citadel's southern gateway (Ueyama and Nozaki 1993: 96), the former are fairly undiagnostic.

Special find no: **45** Context: **9se**
 Stratigraphic Phase: **CVI** Weight: **2g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **60% survives; 1.8cm diameter, 0.65cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: **100** Context: **27se**
 Stratigraphic Phase: **C** Weight: **3g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **25% survives; 2cm diameter, 0.8cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: **140** Context: **48se**
 Stratigraphic Phase: **XCVIII** Weight: **3g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **40% survives; 2cm diameter, 0.55cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: **169** Context: **41se**
 Stratigraphic Phase: **C** Weight: **1.5g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **15% survives; 2cm diameter, 0.8cm wide, 0.45cm thick**
 Comments: **D-shaped cross-section**

Special find no: **170** Context: **55ne**
 Stratigraphic Phase: **XCVI** Weight: **1.5g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **50% survives; 1.5cm diameter, 0.45cm wide, 0.35cm thick**
 Comments: **D-shaped cross-section**

Special find no: **207** Context: **55ne**
 Stratigraphic Phase: **XCVI** Weight: **2g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **50% survives; 2cm diameter, 0.45cm wide, 0.35cm thick**
 Comments: **D-shaped cross-section**

Special find no: **280** Context: **51nw**
 Stratigraphic Phase: **XCIX** Weight: **1g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **25% survives; 2cm diameter, 0.4cm wide, 0.2cm thick**
 Comments: **D-shaped cross-section**

Special find no: **338** Context: **130sw**
 Stratigraphic Phase: **XCV** Weight: **0.5g**
 Description: **Incomplete bangle of opaque light green glass.**
 Dimensions: **0.45cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: **607** Context: **56sw**
 Stratigraphic Phase: **XCV** Weight: **4g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **35% survives; 1.85cm diameter, 0.4cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: **608** Context: **5aw**
 Stratigraphic Phase: **CXII** Weight: **1g**
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **25% survives; 1.9cm diameter, 0.4cm wide, 0.25cm thick**
 Comments: **D-shaped cross-section**

Special find no: 609 Context: 56sw
Stratigraphic Phase: XCV Weight: 0.5g
Description: Incomplete bangle of dark blue glass.
Dimensions: 10% survives; 2cm diameter, 0.5cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 610 Context: 11sw
Stratigraphic Phase: CX Weight: 2g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.7cm wide, 0.6cm thick
Comments: D-shaped cross-section

Special find no: 611 Context: 4se
Stratigraphic Phase: CXIV Weight: 5.5g
Description: Incomplete hollow tubular bangle of light blue glass.
Dimensions: 15% survives; 3cm diameter, 1.3cm wide, 1.2cm thick
Comments: Circular cross-section

Special find no: 615 Context: 123se
Stratigraphic Phase: XCV Weight: 1g
Description: Incomplete bangle of opaque dark green glass; with patina.
Dimensions: 1cm wide, 0.7cm thick
Comments: D-shaped cross-section

Special find no: 657 Context: 184ne
Stratigraphic Phase: XCV Weight: 1.5g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 25% survives; 2cm diameter, 0.4cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 665 Context: 181se
Stratigraphic Phase: XCV Weight: 1g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.45cm wide, 0.35cm thick
Comments: D-shaped cross-section

Special find no: 743 Context: 134ne
Stratigraphic Phase: XCV Weight: 1g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 20% survives; 2cm diameter, 0.4cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 1130 Context: 151se
Stratigraphic Phase: XCV Weight: 2.09g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 10% survives; 3cm diameter, 0.7cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 1136 Context: 26sw
Stratigraphic Phase: CIV Weight: 1.32g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 40% survives; 2cm diameter, 0.35cm wide, 0.25cm thick
Comments: D-shaped cross-section

Special find no: 1187 Context: 25ne
Stratigraphic Phase: XCVII Weight: 0.73g
Description: Incomplete bangle of opaque light turquoise blue glass.
Dimensions: 0.5cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 1188 Context: 25ne
Stratigraphic Phase: XCVII Weight: 0.34g
Description: Incomplete bangle of light blue glass.
Dimensions: 0.5cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1189 Context: 25ne
Stratigraphic Phase: XCV Weight: 0.36g
Description: Incomplete bangle of light blue glass.
Dimensions: 0.5cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1244 Context: 76ne
Stratigraphic Phase: XCV Weight: 0.38g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.6cm wide, 0.35cm thick
Comments: D-shaped cross-section

Special find no: 1245 Context: 76ne
Stratigraphic Phase: XCV Weight: 0.12g
Description: Incomplete bangle of opaque patinated glass.
Dimensions: 0.4cm wide, 0.2cm thick
Comments: D-shaped cross-section

Special find no: 1363 Context: 80nw
Stratigraphic Phase: XCV Weight: 0.25g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.35cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 1397 Context: 123se
Stratigraphic Phase: XCV Weight: 1.02g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 20% survives; 2cm diameter, 0.5cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1405 Context: 56se
Stratigraphic Phase: XCV Weight: 0.19g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.5cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 1607 Context: 271se
Stratigraphic Phase: XCV Weight: 0.6g
Description: Incomplete bangle of opaque light green glass.
Dimensions: 15% survives; 2cm diameter, 0.4cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 1613 Context: 271se
Stratigraphic Phase: XCV Weight: 2g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.7cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1649 Context: 283ne
Stratigraphic Phase: XCV Weight: 0.79g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 0.9cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 1721 Context: 309ne
Stratigraphic Phase: XCIII Weight: 2g
Description: Incomplete bangle of opaque yellow glass.
Dimensions: 20% survives; 2cm diameter, 0.45cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1770 Context: 301ne
Stratigraphic Phase: XCV Weight: 3g
Description: Incomplete bangle of opaque light green glass.
Dimensions: 45% survives; 2cm diameter, 0.4cm wide, 0.3cm thick
Comments: D-shaped cross-section

Special find no: 1779 Context: 316ne
Stratigraphic Phase: XCV Weight: 0.23g
Description: Incomplete bangle of opaque light green glass.
Comments: Fragment.

Special find no: 1820 Context: 316ne
Stratigraphic Phase: XCV Weight: 1.42g
Description: Incomplete bangle of light green glass (outside is ground opaque).
Dimensions: 0.6cm diameter
Comments: Rounded cross-section

Special find no: 1888 Context: 332se
Stratigraphic Phase: XCV Weight: 0.77g
Description: Incomplete bangle of opaque dark blue glass.
Dimensions: 20% survives; 2cm diameter, 0.4cm wide, 0.25cm thick
Comments: D-shaped cross-section

Special find no: 1897 Context: 332se
Stratigraphic Phase: XCV Weight: 0.84g
Description: Incomplete bangle of opaque yellow glass.
Comments: Fragment.

Special find no: 1898 Context: 332se
Stratigraphic Phase: XCV Weight: 0.3g

Description: **Incomplete bangle of opaque light green glass.**
 Dimensions: **0.35cm wide, 0.2cm thick**
 Comments: **D-shaped cross-section**

Special find no: 1922 Context: 334ne
 Stratigraphic Phase: XCV Weight: 0.5g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.4cm wide, 0.2cm thick**
 Comments: **Rounded cross-section**

Special find no: 2119 Context: 320ne
 Stratigraphic Phase: XCV Weight: 0.28g
 Description: **Incomplete bangle of opaque light green glass.**
 Dimensions: **0.5cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2120 Context: 316ne
 Stratigraphic Phase: XCV Weight: 1.13g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **45% survives; 2cm diameter, 0.35cm wide, 0.25cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2125 Context: 301ne
 Stratigraphic Phase: XCV Weight: 1.04g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **20% survives; 2cm diameter, 0.5cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2131 Context: 307se
 Stratigraphic Phase: XCIII Weight: 0.32g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.9cm wide, 0.35cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2198 Context: 320ne
 Stratigraphic Phase: XCV Weight: 0.14g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.4cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2352 Context: 262se
 Stratigraphic Phase: XCV Weight: 1.4g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **20% survives; 2cm diameter, 0.55cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: 2743 Context: 363ne
 Stratigraphic Phase: XCIII Weight: 0.56g
 Description: **Incomplete bangle of opaque light green glass.**
 Comments: **Fragment.**

Special find no: 2781 Context: 365nw
 Stratigraphic Phase: XCII Weight: 1.6g
 Description: **Incomplete bangle of opaque turquoise blue glass.**
 Dimensions: **10% survives; 2cm diameter**
 Comments: **Circular cross-section**

Special find no: 2794 Context: 296ne
 Stratigraphic Phase: XCV Weight: 0.26g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.4cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: 5670 Context: 356ne
 Stratigraphic Phase: XCV Weight: 0.73g
 Description: **Incomplete hollow bangle of light blue glass.**
 Comments: **Fragment.**

Special find no: 5844 Context: 313sw
 Stratigraphic Phase: XCV Weight: 0.51g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.4cm wide, 0.3cm thick**
 Comments: **D-shaped cross-section**

Special find no: 6241 Context: 313sw
 Stratigraphic Phase: XCV Weight: 0.85g
 Description: **Incomplete bangle of opaque dark blue glass.**

Dimensions: **25% survives; 2cm diameter, 0.25cm wide, 0.25cm thick**

Comments: **D-shaped cross-section**
 [Fig. 7.4]

Special find no: 6242 Context: 313sw
 Stratigraphic Phase: XCV Weight: 1.46g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.6cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: 6244 Context: 313sw
 Stratigraphic Phase: XCV Weight: 0.96g
 Description: **Incomplete bangle of light blue-green glass.**
 Dimensions: **10% survives; 2.5cm diameter, 0.55cm wide, 0.45cm thick**
 Comments: **D-shaped cross-section**

Special find no: 8022 Context: 410sw
 Stratigraphic Phase: XCV Weight: 0.51g
 Description: **Incomplete bangle of opaque dark blue glass.**
 Dimensions: **0.5cm wide, 0.4cm thick**
 Comments: **D-shaped cross-section**

Special find no: 15854 Context: 600
 Stratigraphic Phase: XCV Weight: 1.15g
 Description: **Incomplete ribbed bangle of opaque turquoise-blue glass.**
 Dimensions: **2.2cm wide and 0.5–0.2cm thick**
 Comments: **D-shaped cross-section**

7.3.5.2 Spiral bangles

In comparison with the plain bangles, the spiral or twisted bangles appear to form more of a useful group in terms of dating. A total of seven spiral bangles were recovered from ASW2, three from structural period F and four from the fills of robber pits belonging to the next period, C, D & E. All three 'in situ' spiral or twisted bangles were recovered from among the votive deposits of period F's stone pillars. Four similar artefacts were found at the southern gateway, albeit from some of the youngest contexts at the location (Ueyama and Nozaki 1993: 96). Although this category of bangle is absent from the excavation reports from Sigiriya, Abhayagiri and Jetavana, some late examples have also been found at Polonnaruwa, although they appear to be more of a segmented form rather than twisted or spiral (Prematilleke 1982a: 66; 1985: 99).

Special find no: 1786 Context: 301ne
 Stratigraphic Phase: XCV Weight: 1.13g
 Description: **Incomplete spiral bangle of opaque light green glass.**
 Dimensions: **0.9cm wide and thick**
 Comments: **Circular cross-section**
 [Fig. 7.4]

Special find no: 1846 Context: 326ne
 Stratigraphic Phase: XCV Weight: 1.54g
 Description: **Incomplete spiral bangle of opaque dark turquoise-blue glass.**
 Dimensions: **0.9cm wide and thick**
 Comments: **Circular cross-section**

Special find no: 1858 Context: 324ne
 Stratigraphic Phase: XCV Weight: 0.92g
 Description: **Incomplete spiral bangle of opaque sea-green glass.**
 Dimensions: **15% survives; 2cm diameter, 0.5cm wide and thick**
 Comments: **Circular cross-section**

Special find no: 1859 Context: 368nw
 Stratigraphic Phase: XCV Weight: 2.14g
 Description: **Incomplete spiral bangle of opaque dark turquoise-blue glass.**

Dimensions: 20% survives; 2cm diameter, 0.7cm wide and thick
Comments: Circular cross-section
[Fig. 7.4]

Special find no: 3542 Context: 369se
Stratigraphic Phase: XCIII Weight: 1.42g
Description: Fragments of incomplete spiral bangle of opaque light green glass.
Comments: Circular cross-section

Special find no: 5264 Context: 363ne
Stratigraphic Phase: XCIII Weight: 4.08g
Description: Incomplete spiral bangle of opaque light green glass.
Dimensions: 15% survives; 2cm diameter, 0.8cm wide and thick
Comments: Circular cross-section

Special find no: 5265 Context: 363ne
Stratigraphic Phase: XCIII Weight: 10.86g
Description: Incomplete spiral bangle of opaque dark grey-green glass.
Dimensions: 75% survives; 2cm diameter, 0.8cm wide and thick
Comments: Circular cross-section
[Plate 7.2]

7.3.5.3 Inlaid, layered and threaded bangles

Polychrome bangles clearly date from the beginning of the millennium (Dikshit 1969: 34), although the examples from Anuradhapura are undoubtedly later, perhaps even of Satavahana date, if one draws analogies with a similar bangle from Nevasa (ibid.: fig. 10.14). The closest analogies for our polychrome bangles must be those from Maski (ibid.: fig. 14.1) and Nevasa (ibid.: plate B.9 and 10; Sankalia 1960: fig. 193.2–6). Although at the latter site 80 of the 107 fragments of polychrome bangles were recovered from Period VI, the balance of 27 came from the preceding period – the later Early Historic (Sankalia 1960: 446–7). Twelve bangles belonging to this bangle category were recovered from trench ASW2: eight from the disturbed fills of period C, D & E, three from period B and a single redeposited example from period A.

Special find no: 141 Context: 41sw
Stratigraphic Phase: C Weight: 0.4g
Description: Incomplete bangle of amber glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 1.1cm wide, 0.5cm thick
Comments: D-shaped cross-section

Special find no: 149 Context: 41ne
Stratigraphic Phase: C Weight: 2g
Description: Incomplete bangle of amber glass with narrow band of opaque yellow glass on exterior surface.
Dimensions: 35% survives; 2cm diameter, 0.6cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 252 Context: 56sw
Stratigraphic Phase: CX Weight: 1.3g
Description: Incomplete bangle of amber glass with narrow band of opaque yellow glass on exterior surface.
Dimensions: 0.3cm wide, 0.25cm thick
Comments: D-shaped cross-section

Special find no: 606 Context: 4nw
Stratigraphic Phase: CXIV Weight: 5g
Description: Incomplete bangle of opaque dark blue glass with thin parallel threads of opaque yellow glass on surface.
Dimensions: 35% survives; 2cm diameter, 1.4cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 616 Context: 123se
Stratigraphic Phase: XCV Weight: 0.5g

Description: Incomplete bangle of opaque dark blue glass with thin parallel threads of opaque yellow glass on surface.
Dimensions: 0.1cm wide, 0.4cm thick
Comments: D-shaped cross-section
[Plate 1.3]

Special find no: 830 Context: 26ne
Stratigraphic Phase: CIV Weight: 0.3g
Description: Incomplete bangle of opaque dark blue glass with thin parallel threads of opaque yellow glass on surface.
Comments: Fragment.

Special find no: 1261 Context: 166se
Stratigraphic Phase: XCV Weight: 1.85g
Description: Incomplete bangle of opaque dark blue glass with thin parallel threads of opaque yellow glass on surface.
Dimensions: 0.8cm wide, 0.4cm thick
Comments: D-shaped cross-section

Special find no: 1401 Context: 107nw
Stratigraphic Phase: XCV Weight: 0.33g
Description: Incomplete bangle of opaque dark blue glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 0.7cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 1543 Context: 253nw
Stratigraphic Phase: XCV Weight: 1.33g
Description: Incomplete bangle of amber glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 0.85cm wide, 0.45cm thick
Comments: D-shaped cross-section

Special find no: 1602 Context: 273se
Stratigraphic Phase: XCV Weight: 2.88g
Description: Incomplete bangle of amber glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 20% survives; 2cm diameter, 0.9cm wide, 0.5cm thick
Comments: D-shaped cross-section
[Plate 1.3; Fig. 7.4]

Special find no: 1875 Context: 325ne
Stratigraphic Phase: XCV Weight: 0.39g
Description: Incomplete bangle of opaque dark blue glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 0.8cm wide, 0.45cm thick
Comments: D-shaped cross-section
[Fig. 7.4]

Special find no: 6245 Context: 313sw
Stratigraphic Phase: XCV Weight: 2.62g
Description: Incomplete bangle of opaque amber glass with inlaid threads of opaque yellow glass on exterior surface.
Dimensions: 1cm wide, 0.5cm thick
Comments: D-shaped cross-section

7.3.6 Unidentified objects

Three artefacts fall into this category: sfs 1338, 1339 and 6587. The first two clearly fit together, forming a semicircular object of clear, dark blue glass. The function of the completed object remains unclear, but it may perhaps represent a moulded portion of a vessel? The function of sf 6587 remains unknown, although it may represent inlay or even be partially reworked.

Special find no: 1338 Context: 158aw
Stratigraphic Phase: XCV Weight: 0.89g
Description: Incomplete (50%) semicircular object of dark blue glass.
Dimensions: 1.3cm long, 1cm wide and 0.6cm thick
Comments: Joints of 1339.

Special find no: 1339 Context: 158aw
Stratigraphic Phase: XCV Weight: 0.89g

Description: **Incomplete (50%) semicircular object of dark blue glass.**
 Dimensions: **1.3cm long, 1cm wide and 0.6cm thick**
 Comments: **Joins sf 1338.**

Special find no: **6587** Context: **426ne**
 Stratigraphic Phase: **LXXXVIII** Weight: **4g**
 Description: **Badly patinated triangular-shaped fragment of glass object.**

7.4 Glass beads

Glass beads form one of the largest categories of special finds from ASW2 (see Table 7.1). A total of 4,897 glass beads were recovered, about half of this number (2,120) coming from the hoard at pillar foundation 370 from period F. While each bead from other contexts is described in full in Appendix A, only the general trends in colour and shape will be discussed here. The beads from these two sources have been kept separate in the present discussions, as it is feared that the hoard will skew the overall results. This single deposit of 2,120 glass beads may consist of collections of varying ages amalgamated for a ritual deposit, while those listed in Appendix A are held to represent phased depositions. The majority of the 2,277 beads in Appendix A are monochrome in colour and only 25 are polychrome; generally the monochrome examples are earlier (see Plate 1.3 and Table 7.8). Red, representing just under half the beads, was the most commonly occurring monochrome colour in the objects in Appendix A, with pale green second (447). Orange was the third most common colour (288), followed by pale blue (163), yellow (147), dark blue (92), dark green (58), white (54), brown (45) and black (36). The two rarest colours were purple and transparent glass, with four examples of each. Red, orange, and pale and dark blue are the earliest occurring glass beads at ASW2 in period J. This rather limited spectrum is widened in the next period, I, to include black and brown. White is added in period H. The great expansion of colours occurs in period G when a total of 14 colours are found; these include red, orange, pale blue, dark blue, black brown, white, dark green, light green, yellow, transparent and the first two polychrome examples. It is interesting to note that the relatively late appearance of beads of green and yellow glass correlates with that of bangles of the same colour. Purple glass beads only occur during the period C, D & E. As mentioned above, the polychrome examples are late in date, as only four were found in periods F and G. While only infrequent examples of green and white, blue and white, black and white, red and white, or blue and yellow beads were found, most were light green and yellow. Their stratigraphic distribution is similar to that of inlaid bangles of similar glass. Table 7.9 contains the colour distribution of 2,120 glass beads from the hoard found in the foundations of period F. Only two were not monochrome, one being green and clear, the other green and yellow. The distribution of these polychrome beads is generally in agreement with the distribution of similar examples from period F in Table 7.8. The monochrome colours are also in agreement with the beads of Appendix A.

The earliest bead shapes or forms at ASW2 are found in period J, none having been found in the

preceding period, K (see Table 7.6). Of the 22 beads, 15 were discs, 4 were spherical discs, 1 was tubular, 1 a hexagonal prism and 1 an unpierced rod or cane. It seems likely that the disc beads were in fact manufactured by cutting tubular pierced beads into sections. In the next two periods, I and H, we see a gradual growth in the number of beads but the addition of only one new shape, the faceted bead, while period G represents an explosion of new shapes as well as much larger numbers. The majority of period G's 742 beads are either discs or spherical discs, but new shapes include spheres, elliptical and barrel forms, notched prisms and a rectangular spacer. In addition, the first appearance of collared beads occurs during this structural period, although it may be possible that squashed collared spheres are just misshapen collared spheres. Possible indications of manufacturing may be represented by the unperforated sphere and the unseparated or segmented spheres. The expansion of shapes continues during period F with the appearance of notched and collared spheres, collared triangular barrels and triangular spacers. The earlier pre-eminence of discs is taken over by spherical discs in this period. The expansion halts during period C, D & E and declines during period B in terms of shapes and numbers. It is also noticeable that, while some of the earlier forms continue in use, the collared shapes generally are far rarer. The ringed sphere, however, appears to be a new form. An indication of the dangers of re-using beads and their long survival can be found in the presence of six relatively early forms in the disturbed levels of period A. The glass beads from the hoard in context 370 of period F again confirm the general phased distributions of shapes (see Table 7.7). The majority of the beads identified are spherical discs, however collared examples and spacers are also present. Please refer to Appendix A and figures 7.2 and 7.3 for illustrations of the different bead forms.

7.5 Unformed and ingot glass

The excavations at ASW2 yielded 96 examples of unformed glass (see Table 7.10). They form a relatively late group, with the earliest finds in period G but the majority in periods F and C, D & E. These objects range in size from tiny opaque scraps to a sizeable ingot, sf 2825, weighing 58.41 g. Their presence within the trench is very interesting as it suggests that the working of glass, albeit on a small scale, might have actually occurred on site, as glass is usually manufactured either from fresh raw resources or, more generally, by using glass scraps or cullet. The trade in unformed glass is not to be underestimated. For example, the Serce Limani shipwreck of the eleventh century AD discovered off the Turkish coast was carrying complete glass vessels (over 200 different shapes were noted) as well as unformed glass and even perhaps cullet. It has been suggested that this cargo was in transit from Syria to the Black Sea and intended for Byzantine glass-makers (Kroger 1995: 8; Bass and van Doorninck 1978: 124–31). Earlier evidence for such mixing has already been illustrated by the results of the analysis of five glass roundels found in Gandhara; this analysis suggested a Roman source for three roundels, a Near Eastern or Mediterranean source for a

fourth, and an unknown source for the fifth (Wypyski 1992: 283). Wypyski suggested that the unusual composition of the fifth glass might have been due to its manufacture from a mixture of scrap or broken glass from a variety of sources, as such fragments were often melted down into blocks or ingots to be remelted and reformed (ibid.: 283). While we identified one such ingot at ASW2 (sf 2825), Marshall found a number at Sirkap

(Marshall 1951: 690), where he discovered a hoard of 392 lenticular pieces which he identified as “rough flans” for making glass beads”. A further find of “three lumps of brilliant red opaque glass in crude state” probably performed a similar function (ibid.). The ingot from ASW2, sf 2825, is of particular importance as it still bears the impressions of the semicircular crucible in which it was cooled.

Special find no: 135
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 44se
Weight: 5g

Special find no: 220
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 82nw
Weight: 17.39g

Special find no: 318
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 70ne
Weight: 0.1g

Special find no: 433
Stratigraphic Phase: XCV
Description: **Pale green**

Context: 134ne
Weight: 6.84g

Special find no: 458
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134ne
Weight: 1.76g

Special find no: 470
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134ne
Weight: 0.91g

Special find no: 622
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 56sw
Weight: 1.39g

Special find no: 782
Stratigraphic Phase: XCV
Description: **Pale blue**

Context: 56sw
Weight: 1.83g

Special find no: 834
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134ne
Weight: 0.2g

Special find no: 865
Stratigraphic Phase: XCIV
Description: **Dark blue**

Context: 74sw
Weight: 0.07g

Special find no: 911
Stratigraphic Phase: XCV
Description: **Pale green**

Context: 56sw
Weight: 0.33g

Special find no: 1044
Stratigraphic Phase: C
Description: **Dark blue**

Context: 41sw
Weight: 1.69g

Special find no: 1058
Stratigraphic Phase: C
Description: **Pale blue**

Context: 41sw
Weight: 0.17g

Special find no: 1060
Stratigraphic Phase: C
Description: **Pale blue**

Context: 41sw
Weight: 0.24g

Special find no: 1098
Stratigraphic Phase: XCIII
Description: **Pale green**

Context: 73sw
Weight: 1.69g

Special find no: 1106
Stratigraphic Phase: XCV
Description: **Pale blue**

Context: 123se
Weight: 0.04g

Special find no: 1404
Stratigraphic Phase: XCV
Description: **Pale blue**

Context: 175nw
Weight: 2.01g

Special find no: 177
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 61ne
Weight: 0.42g

Special find no: 312
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 126se
Weight: 0.65g

Special find no: 370
Stratigraphic Phase: XCV
Description: **Pale green**

Context: 4nw
Weight: 30.82g

Special find no: 440
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134ne
Weight: 1.04g

Special find no: 462
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134ne
Weight: 3g

Special find no: 613
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 123se
Weight: 0.2g

Special find no: 724
Stratigraphic Phase: XCV
Description: **Pale green**

Context: 214ne
Weight: 1.33g

Special find no: 832
Stratigraphic Phase: CXII
Description: **Dark blue**

Context: 5nw
Weight: 0.6g

Special find no: 838
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 104nw
Weight: 0.6g

Special find no: 897
Stratigraphic Phase: XCV
Description: **Dark blue**

Context: 134se
Weight: 0.7g

Special find no: 996
Stratigraphic Phase: CXII
Description: **Dark blue**

Context: 5nw
Weight: 2.27g

Special find no: 1057
Stratigraphic Phase: CWeight: 0.56g
Description: **Pale blue**

Context: 41sw

Special find no: 1059
Stratigraphic Phase: CWeight: 0.9g
Description: **Pale blue**

Context: 41sw

Special find no: 1061
Stratigraphic Phase: CWeight: 0.05g
Description: **Pale blue**

Context: 41sw

Special find no: 1099
Stratigraphic Phase: CX
Description: **Pale blue**

Context: 19sw
Weight: 0.79g

Special find no: 1385
Stratigraphic Phase: XCV
Description: **Pale blue**

Context: 190nw
Weight: 1.54g

Special find no: 1408
Stratigraphic Phase: XCV
Description: **Pale blue**

Context: 123se
Weight: 0.5g

Glass Objects

Special find no: 1421 Stratigraphic Phase: XCV Description: Pale blue	Context: 182se Weight: 0.3g	Special find no: 1426 Stratigraphic Phase: XCV Description: Pale blue	Context: 157se Weight: 0.25g
Special find no: 1416 Stratigraphic Phase: XCIII Description: clear	Context: 200sw Weight: 3.33g	Special find no: 1430 Stratigraphic Phase: XCVI Description: Pale blue	Context: 83sw Weight: 0.3g
Special find no: 1431 Stratigraphic Phase: XCVI Description: Pale green	Context: 83sw Weight: 0.42g	Special find no: 1529 Stratigraphic Phase: XCV Description: Pale blue	Context: 252sw Weight: 0.12g
Special find no: 1570 Stratigraphic Phase: XCV Description: Dark green	Context: 262se Weight: 7.99g	Special find no: 1583 Stratigraphic Phase: XCV Description: Pale blue	Context: 263nw Weight: 0.11g
Special find no: 1618 Stratigraphic Phase: XCV Description: Pale blue	Context: 284nw Weight: 0.41g	Special find no: 1634 Stratigraphic Phase: XCV Description: Pale blue	Context: 256se Weight: 0.59g
Special find no: 1661 Stratigraphic Phase: XCV Description: Pale blue	Context: 256se Weight: 0.08g	Special find no: 1663 Stratigraphic Phase: XCV Description: Pale blue	Context: 287ne Weight: 0.17g
Special find no: 1730 Stratigraphic Phase: XCV Description: Pale blue	Context: 272se Weight: 1.22g	Special find no: 1764 Stratigraphic Phase: XCV Description: Clear	Context: 316ne Weight: 0.11g
Special find no: 1772 Stratigraphic Phase: XCV Description: Pale blue	Context: 316ne Weight: 0.09g	Special find no: 1774 Stratigraphic Phase: XCV Description: Pale blue	Context: 316ne Weight: 0.05g
Special find no: 1791 Stratigraphic Phase: XCV Description: Pale blue	Context: 316ne Weight: 0.06g	Special find no: 1821 Stratigraphic Phase: XCV Description: Pale blue	Context: 316ne Weight: 0.01g
Special find no: 1842 Stratigraphic Phase: XCV Description: Black	Context: 270se Weight: 6.82g	Special find no: 1855 Stratigraphic Phase: XCV Description: Pale blue	Context: 331se Weight: 0.46g
Special find no: 1884 Stratigraphic Phase: XCV Description: Pale blue	Context: 332se Weight: 0.05g	Special find no: 1990 Stratigraphic Phase: XCV Description: Pale green	Context: 334ne Weight: 0.35g
Special find no: 1962 Stratigraphic Phase: XCIII Description: Pale blue	Context: 73sw Weight: 3.1g	Special find no: 1997 Stratigraphic Phase: XCIII Description: White	Context: 306sw Weight: 0.35g
Special find no: 2123 Stratigraphic Phase: XCIII Description: Pale blue	Context: 305sw Weight: 0.39g	Special find no: 2146 Stratigraphic Phase: XCIII Description: Pale blue	Context: 306se Weight: 0.33g
Special find no: 2170 Stratigraphic Phase: XCV Description: Pale blue	Context: 324ne Weight: 0.75g	Special find no: 2176 Stratigraphic Phase: XCV Description: Pale blue	Context: 324ne Weight: 0.09g
Special find no: 2192 Stratigraphic Phase: XCV Description: Pale blue	Context: 316ne Weight: 0.02g	Special find no: 2370 Stratigraphic Phase: XCV Description: Pale blue	Context: 325ne Weight: 0.15g
Special find no: 2372 Stratigraphic Phase: XCV Description: Pale blue	Context: 325ne Weight: 0.62g	Special find no: 2374 Stratigraphic Phase: XCV Description: Dark blue	Context: 324ne Weight: 0.73g
Special find no: 2511 Stratigraphic Phase: XCV Description: Pale blue	Context: 344nw Weight: 0.14g	Special find no: 2600 Stratigraphic Phase: XCV Description: Pale blue	Context: 292ne Weight: 0.18g
Special find no: 2602 Stratigraphic Phase: XCV Description: Pale blue	Context: 292ne Weight: 1.53g	Special find no: 2616 Stratigraphic Phase: XCV Description: Pale blue	Context: 292ne Weight: 0.11g
Special find no: 2629 Stratigraphic Phase: XCV Description: Pale blue	Context: 359nw Weight: 0.02g	Special find no: 2665 Stratigraphic Phase: XCV Description: Pale blue	Context: 356nw Weight: 0.01g
Special find no: 2679 Stratigraphic Phase: XCV Description: Pale blue	Context: 292ne Weight: 0.00g	Special find no: 2702 Stratigraphic Phase: XCV Description: Pale blue	Context: 294ne Weight: 0.03g

Special find no: 2762 Stratigraphic Phase: XCV Description: Pale blue	Context: 368nw Weight: 0.03g	Special find no: 2825 Stratigraphic Phase: XCIII Description: Ingot of opaque pale blue glass Diameter: 4.2cm Dimensions: 4.2cm diameter; 2.2cm thick [Plates 1.3 and 7.1; Fig. 7.4]	Context: 358se Weight: 58.41g
Special find no: 2928 Stratigraphic Phase: XCIII Description: Pale green	Context: 304ne Weight: 26.54g	Special find no: 2976 Stratigraphic Phase: XCII Description: Pale blue	Context: 367sw Weight: 0.02g
Special find no: 2985 Stratigraphic Phase: XCIII Description: Pale blue	Context: 304ne Weight: 0.31g	Special find no: 5057 Stratigraphic Phase: XCIII Description: Pale blue	Context: 369se Weight: 0.17g
Special find no: 5074 Stratigraphic Phase: XCII Description: Dark blue	Context: 365nw Weight: 3.43g	Special find no: 5773 Stratigraphic Phase: XCII Description: Dark blue	Context: 367sw Weight: 0.48g
Special find no: 5803 Stratigraphic Phase: XCV Description: Dark blue	Context: 324ne Weight: 1.31g	Special find no: 5861 Stratigraphic Phase: XCV Description: Dark blue	Context: 313sw Weight: 0.8g
Special find no: 5929 Stratigraphic Phase: XCIII Description: Pale red	Context: 304ne Weight: 0.1g	Special find no: 5930 Stratigraphic Phase: XCIII Description: Dark blue	Context: 304ne Weight: 0.08g
Special find no: 5932 Stratigraphic Phase: XCIII Description: Black	Context: 304ne Weight: 0.11g	Special find no: 6066 Stratigraphic Phase: XCII Description: Pale blue	Context: 367sw Weight: 0.15g
Special find no: 6092 Stratigraphic Phase: XCIII Description: Pale blue	Context: 305nw Weight: 0.09g	Special find no: 6288 Stratigraphic Phase: XCV Description: Pale green	Context: 393sw Weight: 2.13g
Special find no: 6730 Stratigraphic Phase: LXXXVII Description: Pale blue	Context: 441ne Weight: 0.62g	Special find no: 6967 Stratigraphic Phase: XCV Description: Dark blue	Context: 429sw Weight: 0.3g
Special find no: 8103 Stratigraphic Phase: LXXV Description: Red	Context: 492se Weight: 0.01g	Special find no: 15797 Stratigraphic Phase: XCV Description: Dark blue	Context: 600 Weight: 0.1g
Special find no: 15798 Stratigraphic Phase: XCV Description: Pale blue	Context: 600 Weight: 0.02g	Special find no: 15853 Stratigraphic Phase: XCV Description: Dark blue	Context: 600 Weight: 0.11g

7.6 Conclusion

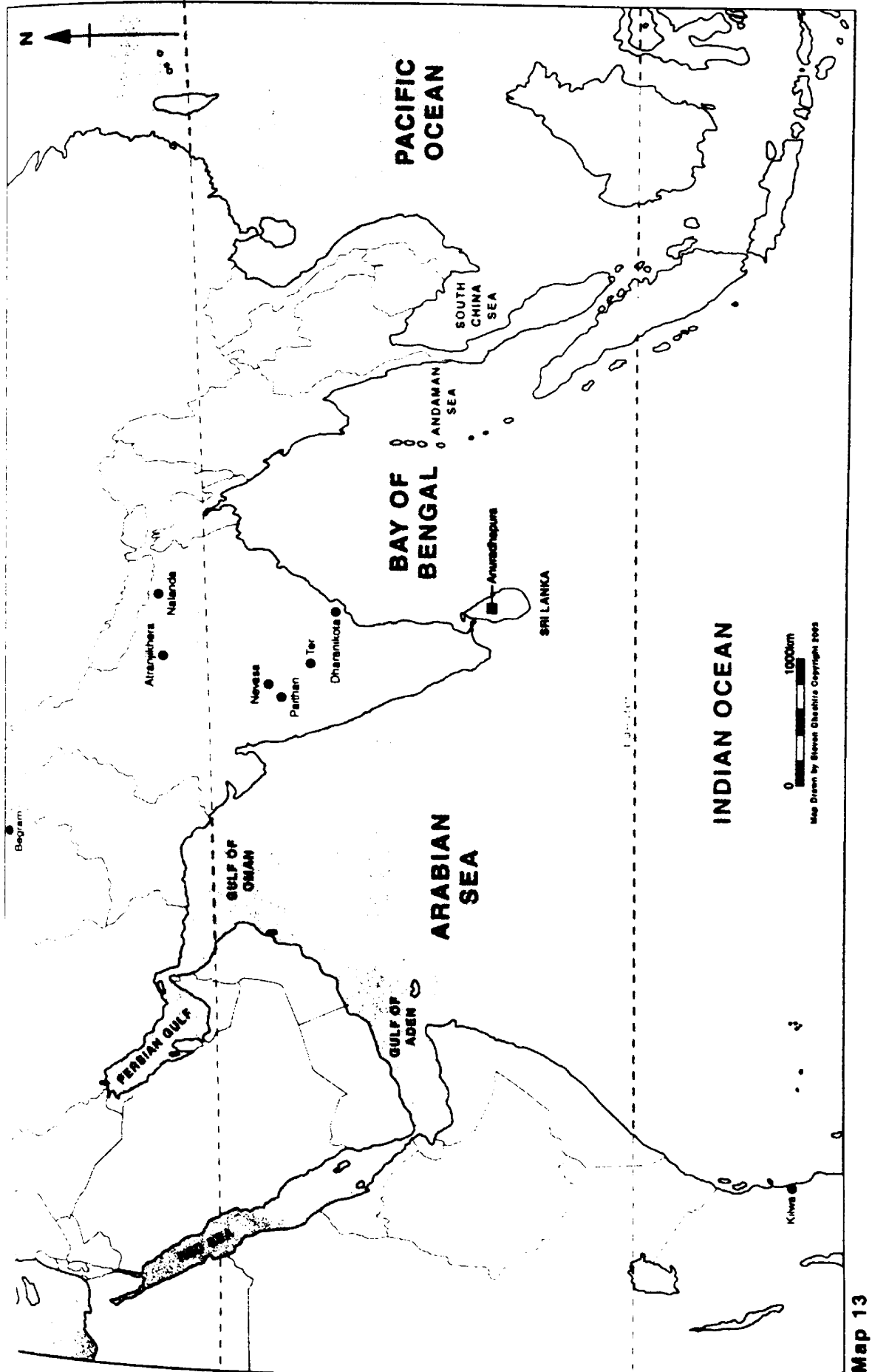
As was found above in Chapter 3: Metal Objects, Chapter 5: Glazed Ceramics and Chapter 6: Unglazed Ceramics, the extent of continuity in Indian Ocean trade objects at Anuradhapura is becoming more apparent. Generally we can see a trade that first becomes archaeologically visible at ASW2 in the first century BC and continues until the city's fall in the eleventh century AD. The presence of locally produced ceramics inspired by Mediterranean ceramics appears to parallel the presence of imports of glass vessels from the eastern Mediterranean. Similarly, the presence of glass vessels and objects imported from Egypt, Syria and Persia mirrors almost exactly the presence of the early Islamic glazed wares. The presence of Mediterranean-inspired motifs on metalwork, as well as perhaps the presence of saws and mirrors, also parallels these general trends. Again it is interesting to note that the presence of such objects at Anuradhapura is not as ballast or as objects unloaded at a maritime entrepot; rather they represent objects brought miles into the interior of the island to the dynastic capital of the island-wide kingdom. Their presence also appears rather to run counter to Chaudhuri's belief that in the Indian subcontinent

"ritualistic authority and laws of religious pollution ruled out the usage of fragile but high-valued glass and porcelain as objects for serving food and drink" (Chaudhuri 1990: 332).

While the glass vessels have been fully described above and are clearly imports from the Graeco-Roman and Islamic worlds, there are also a series of artefacts - bangles, rings and beads - that are clearly of South Asian manufacture. It seems to be generally agreed that the modern tradition of the manufacture of glass dates to the beginning of the first millennium BC (Glover and Henderson 1995: 143), however it was during the second half of the first millennium that glass objects became widespread within South Asia (Basa 1992: 99). The study of the manufacture of rings and bangles appears to have been neglected, as opposed to the numerous works on glass beads. Indeed, Francis has identified four diagnostic regional types of glass beads within India (Francis 1982). The first region is North India, with finds of square tubes of amber glass with six spots on either face and black beads with a white inlaid strip; the second is based at Arikamedu and consists of cutting drawn tubes and collared or grooved and collared beads; the

third is based in Maharashtra in western India and consists of drawn monochrome beads, melon and gold-foil beads; and the fourth group is found in North India and comprises opaque orange beads. It is worth noting that the distribution of these groups is not as clear as was first thought but overlaps substantially, as pointed out by Basa (1992). While the evidence that such beads were manufactured in South Asia may not be very clear from the various chemical analyses (Glover and Henderson 1995: 146–7), the presence at many sites of lumps of unworked glass, crucibles and wasters is unmistakable (*ibid.*: 98; Francis 1991: 32).

Indeed the glass beads catalogues from ASW2 appear to fit well into Francis's South Indian group, although the latter, unlike the former, does not appear to be tied into a periodized typology. Francis is of the opinion that beadworkers producing shapes belonging to this category were centred in Arikamedu from the third century BC until the late second century AD, after which some then moved to Sri Lanka and Southeast Asia. When their new centres were abandoned, "the beadmakers were forced to move" until they returned to South India (*ibid.*: 35). As the earliest glass beads from ASW2 are drawn monochrome beads of the South Indian tradition dating to c. 400 BC, we must assume that there were other bead-manufacturing centres in operation before Arikamedu. It seems unlikely that there was such a centre in the locality of ASW2 as we have found no evidence of wasters and associated raw materials until the first century BC. However, after that date, although we still find no evidence of wasters, the presence of sectioned beads, unperforated beads, the glass ingot and the sheer volume of unformed glass fragments suggest that the manufacture of glass objects did occur close to the trench location. This would certainly give a further Sri Lankan manufacturing centre for Francis's category of 'Indo-Pacific beads', Mantai having already been identified (*ibid.*: 34). However, such waste indicators of glass manufacture are somewhat misleading as they will only identify the largest manufacturing loci. It can be hypothesized that many small-scale operations will be archaeologically invisible. Such a case is illustrated by Buchanan's description of itinerant glass-workers in Madras Presidency who purchased raw glass of various colours from glass furnaces and then worked it into bangles on small ovens in the city bazaars (Buchanan 1870: III, 369–72).



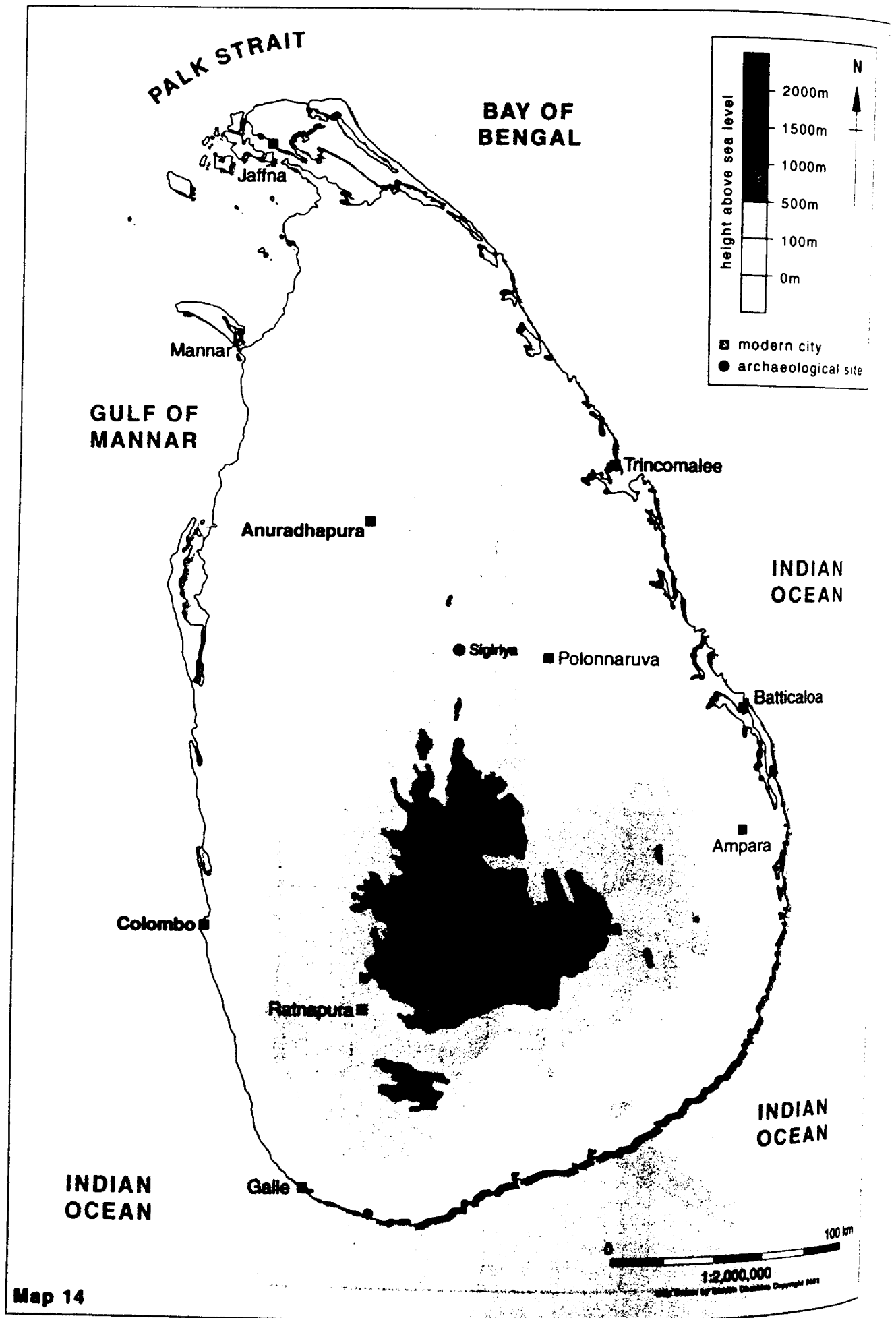


Table 7.1 Glass objects

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Vessels											
	number	5	95	291	32	20					443
	weight (g)	12.69	115.29	243.6	15.58	15.44					402.6
Other objects											
	number			4	2	1					7
	weight (g)			3.56	3.14	4					10.7
Rings											
	number		1	8	3	5		1			18
	weight (g)		0.13	6.33	1.39	4.38		0.36			12.59
Bangles											
	number	2	15	49	7						73
	weight (g)	10.5	19.45	51.71	19.42						20.84
Beads											
	number	6	171	511	653	742	94	78	22		2277
	weight (g)										512.63
Beads (hoard)											
	number				2120						2120
	weight (g)				220.83						220.83
Unformed glass											
	number		11	65	18	2					96
	weight (g)		7.99	107.11	99.08	0.63					214.87
Total											
	number	13	293	928	2835	770	94	79	22		5034
	weight (g)	23.19	142.86	412.37	360.86	24.45		0.36			1479.72

Table 7.2 Glass vessels

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Rims											
	number	1	3	14							20
	weight (g)	3.59	2.45	18.72							26.94
Necks											
	number		1	3							4
	weight (g)		1.69	5.56							7.25
Bases											
	number		2	1							3
	weight (g)		8.54	3.39							11.93
Décorated body											
	number		1		1	2					4
	weight (g)		5.63		0.3	2.16					8.09
Undiagnostic sherds											
	number	4	88	273	31	16					412
	weight (g)	9.1	96.98	215.93	15.28	11.1					348.39
Total											
	number	5	95	291	32	20					443
	weight (g)	12.69	116.29	243.6	15.58	15.44					402.6

Table 7.3 Eastern Mediterranean glass vessels

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Bowls											
	number					1					1
	weight (g)					1.23					1.23
Décorated body											
	number		1		1	2					4
	weight (g)		5.63		0.3	2.16					8.09
Total											
	number		1		1	3					5
	weight (g)		5.63		0.3	3.39					9.32

Table 7.4 Early Islamic glass vessels

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Bowls	number		1	2							3
	weight (g)		1.73	2.42							4.15
Beakers	number	1		4							5
	weight (g)	3.59		3.05							6.64
Flasks	number		1	4							5
	weight (g)		0.48	10.53							11.01
Toilet flasks	number		1	4							5
	weight (g)		0.24	2.72							2.96
Phials	number			3							3
	weight (g)			5.56							5.56
Other vessels	number		3	1							4
	weight (g)		10.23	3.39							13.62
Total	number	1	6	18							25
	weight (g)	3.59	12.68	27.67							43.94

Table 7.5 Other glass objects

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Hair curls	number			1	1						2
	weight (g)			0.89	1.98						2.87
Ear reels	number				1						1
	weight (g)				1.16						1.16
Kohl sticks	number			1							1
	weight (g)			0.89							0.89
Rings	number		1	8	3	5		1			18
	weight (g)		0.13	6.33	1.39	4.38		0.36			12.59
Plain bangles	number	1	12	37	4						54
	weight (g)	5.5	16.75	34.78	4.48						61.51
Spiral bangles	number			4	3						7
	weight (g)			5.73	16.36						22.09
Inlaid bangles	number	1	3	8							12
	weight (g)	5	2.7	11.2							18.9
Unidentified	number			2		1					3
	weight (g)			1.78		4					5.78
Total	number	2	16	61	12	6					78
	weight (g)	10.5	19.58	61.6	25.37	8.38		0.36			125.79

Table 7.7 Glass bead shapes (hoard)

Category	Period	F
Disc	<i>number</i>	1
Spherical disc	<i>number</i>	2071
Collared sphere	<i>number</i>	21
Squashed collared sphere	<i>number</i>	16
Rectangular spacer	<i>number</i>	2
Notched & collared sphere	<i>number</i>	4
Undiagnostic	<i>number</i>	5
Total	<i>number</i>	2120

Table 7.6 Glass bead shapes

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Disc	number	2	20	32	22	628	92	73	15		884
Spherical disc	number	3	103	298	493	84	2	4	4		991
Tube	number		6	36	26	5			1		74
Hexagonal prism	number				1				1		2
Faceted	number							1			1
Sphere	number	1	23	64	59	3					150
Collared sphere	number		7	21	8	7					43
Squashed collared sphere	number			1	8	2					11
Collared cornerless cube	number					1					1
Elliptical	number			15	9	1					25
Squashed sphere	number			1		2					3
Barrel	number		1	1		1					3
Notched prism	number		1	3		1					5
Rectangular spacer	number			1		1					2
Notched & collared sphere	number		1		3						4
Collared triangular barrel	number				1						1

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Truncated bicone	number			1	1						2
Triangular spacer	number				1						1
Ringed sphere	number			2							2
Segmented sphere	number				1	1					2
Unperforated sphere	number		2	4	1	1					8
Rod	number								1		1
Undiagnostic	number		7	31	19	4					61
Total	number	6	171	511	653	742	94	78	22		2277

Table 7.8 Glass bead colours

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Red	number	3	16	37	72	607	92	69	18		914
Orange	number	2	33	113	109	24		5	2		288
Pale blue	number		14	71	62	13		2	1		163
Dark blue	number		10	41	22	17	1		1		92
Black	number		4	5	20	6		1			36
Brown	number		10	29	4	1		1			45
White	number		16	7	14	16	1				64
Dark green	number		6	26	22	4					58
Pale green	number		40	125	245	37					447
Yellow	number		13	41	80	13					147
Transparent	number			1	1	2					4
Green & white	number					1					1
Blue & white	number					1					1
Black & white	number				1						1
Red & white	number				1						1
Red & orange	number			2							2
Blue & yellow	number			1							1
Green & yellow	number	1	9	8							18

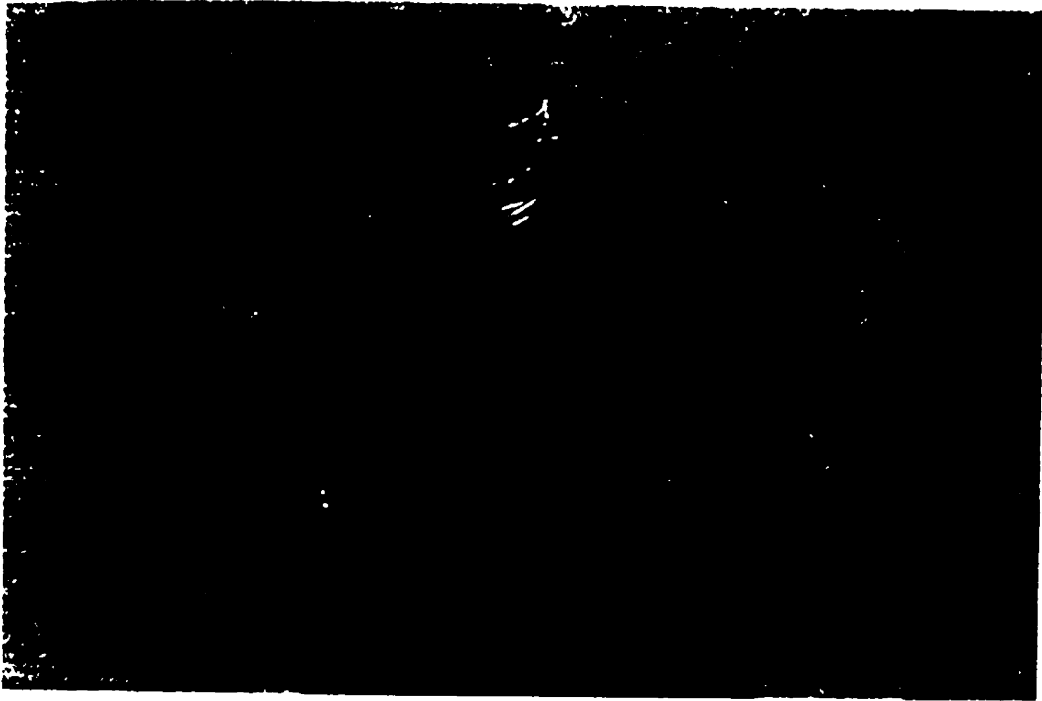
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Table 7.10 Unformed glass

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Unformed glass	number		11	65	18	2					96
	weight (g)		7.99	107.17	99.08	0.63					214.87
Total	number		11	65	18	2					96
	weight (g)		7.99	107.17	99.08	0.63					214.87

Table 7.9 Glass bead colours (hoard)

Category	Period	F
Red	<i>number</i>	102
Orange	<i>number</i>	72
Pale blue	<i>number</i>	301
Dark blue	<i>number</i>	142
Black	<i>number</i>	370
Brown	<i>number</i>	203
White	<i>number</i>	229
Pale Green	<i>number</i>	140
Yellow	<i>number</i>	559
Green & clear	<i>number</i>	1
Green & yellow	<i>number</i>	1
Total	<i>number</i>	2120

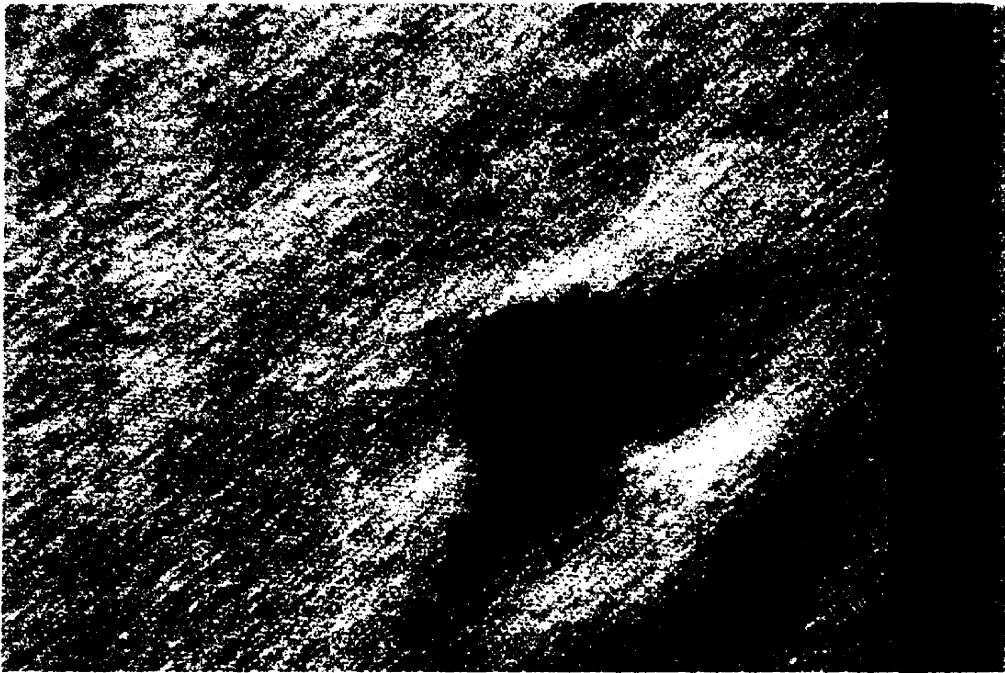


Glass ingot (sf 2825)



Glass ingot (sf 2825)

Plate 7.1: Glass objects



Glass hair curl (sf 633)



Spiral glass bangle (sf 5265)

Plate 7.2: Glass objects

Glass Objects

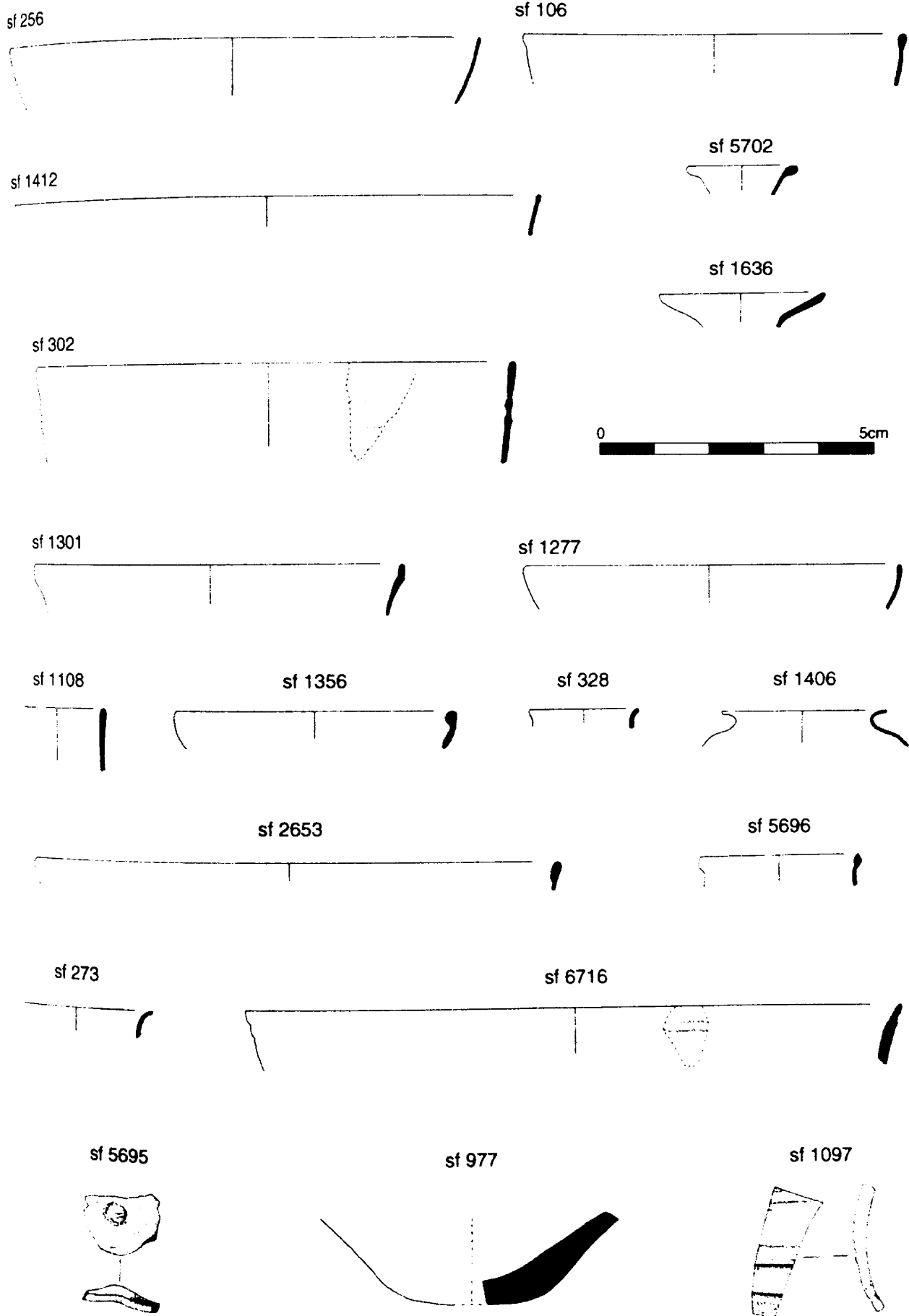


Figure 7.1 Glass Objects

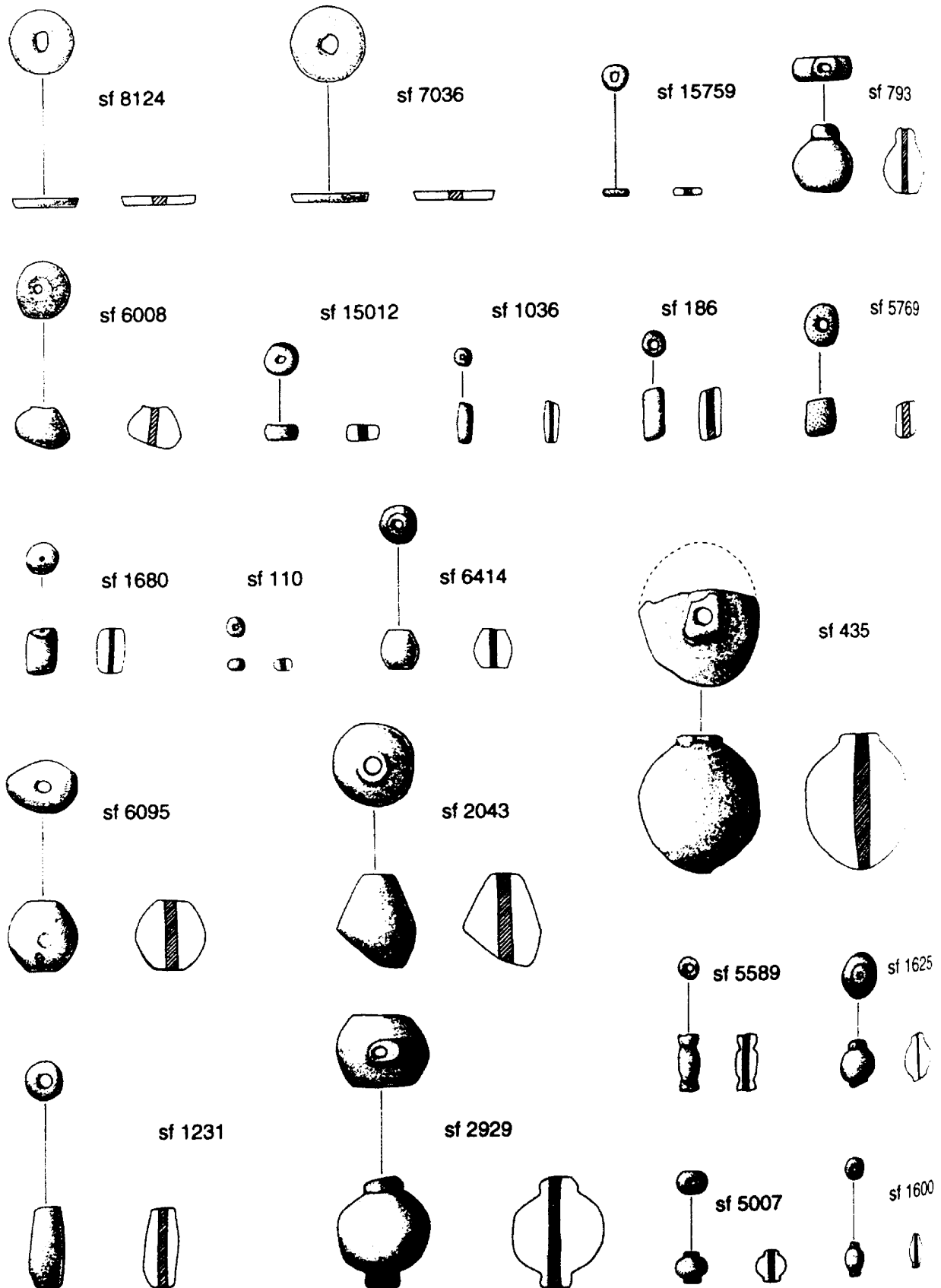


Figure 7.2 Glass Objects

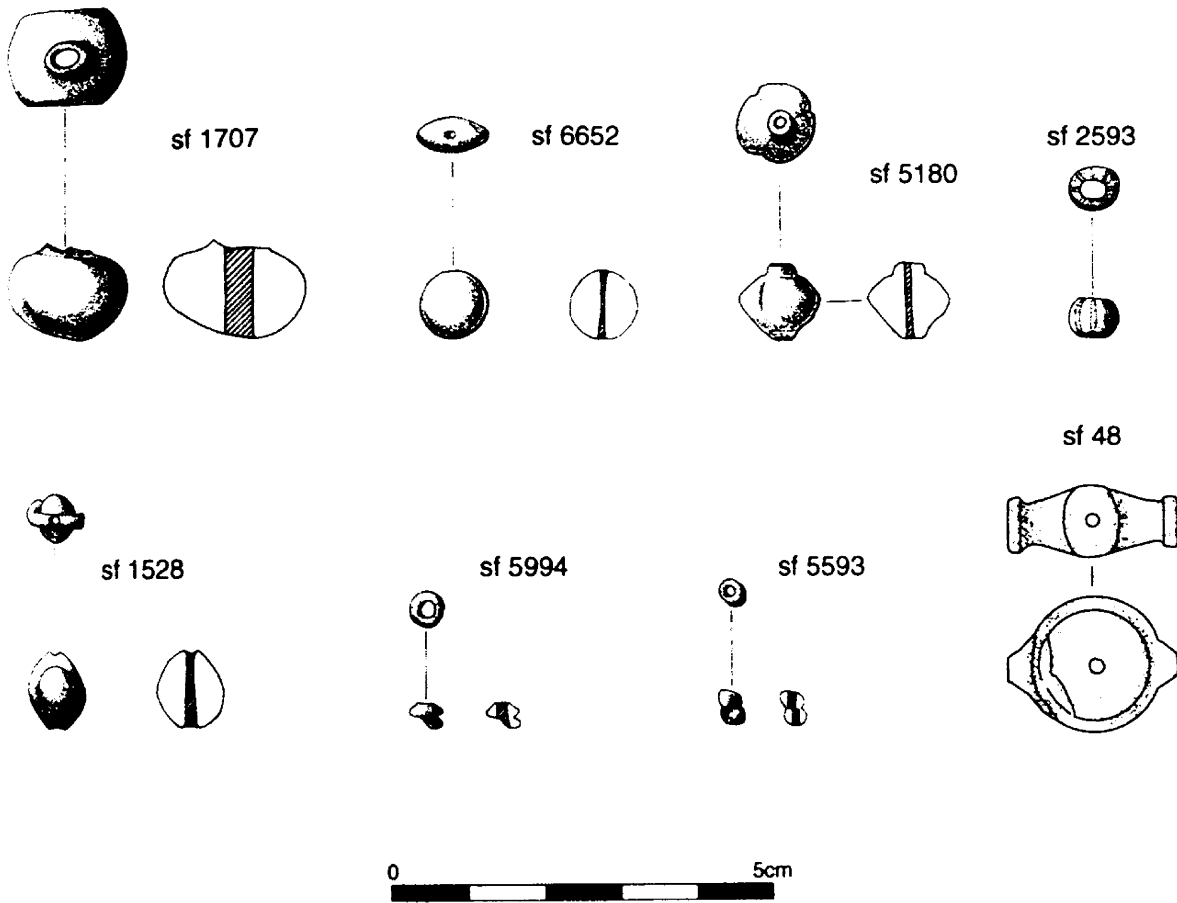
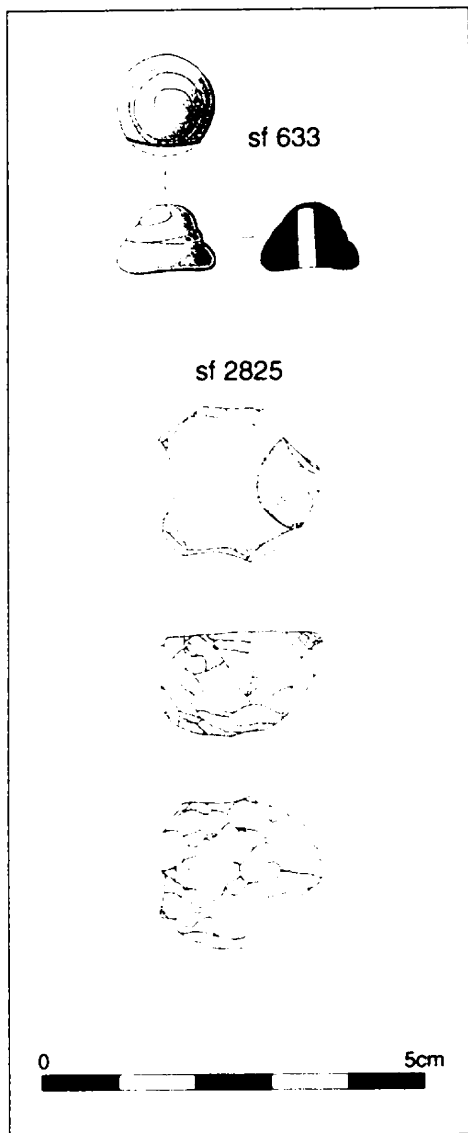
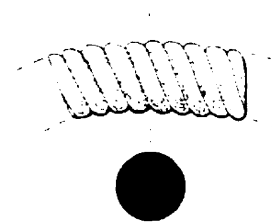


Figure 7.3 Glass Objects



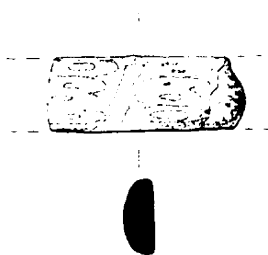
sf 1859
bangle round profile



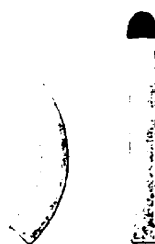
sf 1786
bangle round profile



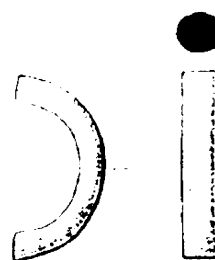
sf 1875
bangle D profile



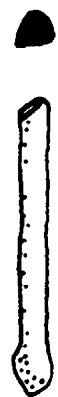
sf 1602
bangle D profile



sf 6241
bangle D profile



sf 6726
ring round profile



sf 214
kohl stick



Figure 7.4 Glass Objects

CHAPTER 8

STONE OBJECTS

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and Louise Ford*

8.1 Introduction

This chapter describes the large assemblage of stone objects recovered from trench ASW2 at Anuradhapura. It identifies the raw material of the objects, describes their form and infers function. A total of 793 stone objects have been recovered from trench ASW2, weighing 12,280.53 grams (see Table 8.1). The objects range from period J to B and thus date from c. 510 cal. BC to AD 1100. A variety of forms and shapes have been identified, such as spherical discs and tube-shaped beads, although most are manufacturing debris. They are of numerous materials, including lapis lazuli, chert, carnelian, chalcedony, agate, jasper, sard, garnet, amethyst, quartz, quartzite, mica and amazonite and come from a variety of sources (see Maps 15 and 16), which Steve Laurie of the Mineralogical Department, Sidgwick Museum, Cambridge, assisted in identifying. The large quantity of quartz crystal, encompassing various kinds of modification and different degrees of completion, permits modelling of the stages of bead manufacture for that material. It is probably typical of many of the materials recovered here, but represented by fewer artefacts. Few scholars have attempted to identify manufacturing techniques and the degree of organization, although research in this area is developing. Kenoyer *et al.* (1994: 284) used ethnoarchaeological data of carnelian bead manufacture in Khambhat (Gujarat) to hypothesize the organization of production in ancient South Asia. These data enabled the identification of two types of production for the sites of Chanhu-daro and Mohenjo-daro. The former appears to be well controlled and centralized owing to the standardized bead forms, whereas the latter indicates a more entrepreneurial and short-term production, as evidenced by the quantity of different raw materials and the differing quality of materials (Kenoyer *et al.* 1994: 304). Vidale's (1987) paper on bead-making in the Moneer southeast area at Mohenjo-daro provides insight into the production techniques utilized. Deraniyagala (1972: 134–9) has compared bead forms from Anuradhapura (Gedige) with other South Asian sites in order to build up a relative chronology. The modelling of manufacturing stages follows the description of the artefacts, which is organized by raw material.

8.2 Lapis lazuli

This rock is mainly composed of the mineral lazurite, which provides its characteristic dark blue colour (Casanova 1992: 49). Other minerals include calcite and

pyrite. It occurs as a result of contact metamorphism of limestone and is found near Lake Baikal, Russia, and most famously at Badakhshan in northeast Afghanistan (Roberts *et al.* 1974: 349) and Baluchistan (Lahiri 1992: 22). The Mogok stone tract in Burma has also yielded lapis lazuli (Krishnan 1982: 159). Other sites in South Asia have also yielded quantities of lapis lazuli, such as Taxila in Pakistan and Nevasa in Maharashtra. Lapis lazuli beads have been found at Veerapuram and Raigir in Andhra Pradesh (Lahiri 1992: 274, 335, 355). It does not occur naturally in Sri Lanka or India and its presence in trench ASW2 at Anuradhapura indicates that it is an imported item and that there must have been long-distance trade as early as 360 cal. BC. Five beads have been discovered from periods I, G and F (c. 360 cal. BC–AD 600), which are sphere, lugged angular and triangular spacer shaped, along with one undiagnostic faceted object.

8.2.1 Triangular spacer bead

Special find no: 5060 Context: 306se
Stratigraphic phase: XCIII Weight: 0.12g
Description: Triangular spacer
Dimensions: 0.66cm x 0.28cm
[Fig. 8.1]

8.2.2 Faceted bead

Special find no: 2595 Context: 73ne
Stratigraphic phase: XCIII Weight: 0.63g
Description: Undiagnostic
Dimensions: 0.85cm x 0.6cm
[Fig. 8.1]

8.2.3 Lugged angular bead

Special find no: 6689 Context: 427se
Stratigraphic phase: XC1 Weight: 0.53g
Description: Lugged angular
Dimensions: 0.78cm x 0.6cm
[Plate 1.4; Fig. 8.1]

8.2.4 Sphere beads

Special find no: 16821 Context: 1119sw
Stratigraphic phase: XXIX Weight: 0.39g
Description: Sphere bead
Dimensions: 0.58cm x 0.64cm

Special find no: 10629 Context: 1206ne
Stratigraphic phase: XXXV1 Weight: 0.12g
Description: Sphere bead
Dimensions: 0.38cm x 0.44cm

8.3 Greenstone

Greenstone is a general term for a slightly altered basic igneous rock, such as epidiorite (Whitten and Brooks 1972: 217). Basic rocks, such as amphibolites, are present in Sri Lanka and it is likely that this was a locally exploited source (Cooray 1984: 101). An epidiorite wedge has been found at Hallur in northern Karnataka (Lahiri 1992: 343). Thirty-seven samples of greenstone

have been identified from trench ASW2, five of which are beads, thirty-one pieces of raw material and one undiagnostic. They range in date from c. 200 cal. BC to AD 1100, with the majority occurring in period F, which dates from c. AD 200 to 1100, indicating increased bead production and specialization.

8.3.1 Spherical disc

Special find no: 6002 Context: 304ne
Stratigraphic phase: XCIII Weight: 0.17g
Description: **Spherical disc bead**
Dimensions: 0.46cm x 0.61cm

8.3.2 Collared sphere

Special find no: 5099 Context: 304ne
Stratigraphic phase: XCIII Weight: 1.26g
Description: **Collared sphere bead**
Dimensions: 1cm x 1.05cm

Special find no: 4194 Context: 370sw
Stratigraphic phase: XCIII Weight: 1.73g
Description: **Collared sphere bead**
Dimensions: 1.28cm x 1.5cm

Special find no: 4195 Context: 370sw
Stratigraphic phase: XCIII Weight: 1.51g
Description: **Collared sphere bead**
Dimensions: 1.24cm x 1.42cm

8.3.3 Squashed collar

Special find no: 6076 Context: 345sw
Stratigraphic phase: XCIII Weight: 5.45g
Description: **Squashed collar bead**
Dimensions: 2.21cm x 1.55cm
[Fig. 8.1]

8.3.7 Raw material

Special find no: 936 Context: 27
Stratigraphic phase: C Weight: 15g
Description: **1 piece of greenstone**
Dimensions: 3.3cm x 2.8cm

Special find no: 937 Context: 9nw
Stratigraphic phase: CVI Weight: 5.5g
Description: **1 piece of greenstone**
Dimensions: 6.5cm x 3.1cm

Special find no: 1304 Context: 9nw
Stratigraphic phase: CVI Weight: 13.2g
Description: **2 pieces of greenstone**

Special find no: 939 Context: 15ne
Stratigraphic phase: CXI Weight: 15g
Description: **1 piece of greenstone**
Dimensions: 3.5cm x 3.4cm

Special find no: 1286 Context: 25ne
Stratigraphic phase: XCVII Weight: 40.48g
Description: **3 pieces of greenstone**

Special find no: 941 Context: 78se
Stratigraphic phase: XCV Weight: 60g
Description: **1 piece of greenstone**
Dimensions: 5.5cm x 4.1cm

8.3.4 Conch-shaped bead

Special find no: 2947 Context: 304ne
Stratigraphic phase: XCIII Weight: 27.5g
Description: **Conch-shaped bead**
Dimensions: 8.4cm x 2.15cm
[Plates 1.4 and 8.1; Fig. 8.1]

8.3.5 Pendant

Special find no: 199 Context: 65sw
Stratigraphic phase: CX Weight: 19.5g
Description: **Pendant**
Dimensions: 2.32cm x 1.41cm
[Plate 8.2; Fig. 8.1]

8.3.6 Undiagnostic

Special find no: 5100 Context: 304ne
Stratigraphic phase: XCIII Weight: 0.79g
Description: **Undiagnostic**
Dimensions: 1.1cm x 1cm

Special find no: 1374 Context: 41sw
Stratigraphic phase: C Weight: 1.32g
Description: **1 piece of greenstone**

Special find no: 940 Context: 9se
Stratigraphic phase: CVI Weight: 3.4g
Description: **1 piece of greenstone**
Dimensions: 1.6cm x 2.2cm

Special find no: 2340 Context: 26sw
Stratigraphic phase: CIV Weight: 34.43g
Description: **1 piece of greenstone**

Special find no: 1302 Context: 47nw
Stratigraphic phase: XCVI Weight: 242.9g
Description: **1 piece of greenstone**

Special find no: 2338 Context: 300se
Stratigraphic phase: XCV Weight: 150.58g
Description: **1 piece of greenstone**

Special find no: 1549 Context: 261nw
Stratigraphic phase: XCV Weight: 296.61g
Description: **3 pieces of greenstone**

Special find no: **942** Context: **107nw**
Stratigraphic phase: **XCV** Weight: **30g**
Description: **1 piece of greenstone**
Dimensions: **4.1cm x 2.9cm**

Special find no: **942** Context: **107nw**
Stratigraphic phase: **XCV** Weight: **25g**
Description: **1 piece of greenstone**

Special find no: **2745** Context: **368nw**
Stratigraphic phase: **XCV** Weight: **525g**
Description: **1 piece of greenstone**

Special find no: **2697** Context: **356ne**
Stratigraphic phase: **XCV** Weight: **946.06g**
Description: **1 piece of greenstone**

Special find no: **6040** Context: **364ne**
Stratigraphic phase: **XCII** Weight: **802.86g**
Description: **1 piece of greenstone**

Special find no: **2868** Context: **364ne**
Stratigraphic phase: **XCII** Weight: **10g**
Description: **1 piece of greenstone**

Special find no: **2076** Context: **306se**
Stratigraphic phase: **XCIII** Weight: **15.8g**
Description: **1 piece of greenstone**

Special find no: **6307** Context: **385se**
Stratigraphic phase: **XCI** Weight: **140g**
Description: **1 piece of greenstone**

Special find no: **8051** Context: **495sw**
Stratigraphic phase: **LXXX** Weight: **2410g**
Description: **3 pieces of greenstone**

Special find no: **6824** Context: **470**
Stratigraphic phase: **LXXXI** Weight: **425g**
Description: **1 piece of greenstone**

Special find no: **938** Context: **107nw**
Stratigraphic phase: **XCV** Weight: **4.2g**
Description: **1 piece of greenstone**
Dimensions: **2.4cm x 1.2cm**

Special find no: **794** Context: **204ne**
Stratigraphic phase: **XCV** Weight: **1260g**
Description: **1 piece of greenstone**

Special find no: **2336** Context: **289ne**
Stratigraphic phase: **XCV** Weight: **38.05g**
Description: **1 piece of greenstone**

Special find no: **2419** Context: **158nw**
Stratigraphic phase: **XCV** Weight: **94.45g**
Description: **1 piece of greenstone**

Special find no: **6004** Context: **364ne**
Stratigraphic phase: **XCII** Weight: **249.91g**
Description: **1 piece of greenstone**

Special find no: **2567** Context: **73sw**
Stratigraphic phase: **XCIII** Weight: **634.67g**
Description: **1 piece of greenstone**

Special find no: **6307** Context: **385se**
Stratigraphic phase: **XCI** Weight: **144.35g**
Description: **1 piece of greenstone**
Dimensions: **2cm x 4cm**

Special find no: **8496** Context: **490sw**
Stratigraphic phase: **LXXV** Weight: **3.33g**
Description: **1 piece of greenstone**

Special find no: **8052** Context: **487ne**
Stratigraphic phase: **LXXXI** Weight: **125g**
Description: **1 piece of greenstone**

8.4 Chert, carnelian, agate, chalcedony, jasper and sard

Carnelian, agate, jasper, sard and chert are varieties of chalcedony, which is a very fine-grained quartz that does not form crystals (cryptocrystalline quartz) (Roberts *et al.* 1974: 504). They differ from chalcedony in their colour, which includes white, grey, blue, brown and black. Agate also displays a multitude of colours as it is a form of banded chalcedony (Roberts *et al.* 1974). Carnelian has a blood-red to reddish-brown colour and is translucent. Jasper is a red chert-like form of chalcedony and is opaque (Whitten and Brooks 1972: 251). Sard is a reddish or brown colour. Chalcedony commonly occurs in sediments, low-temperature hydrothermal veins or as an amygdale filling (Roberts *et al.* 1974: 413). They therefore have a similar provenance. Cryptocrystalline quartz can be found in north and south Waziristan and the Gomal plain (Upper Indus plain); Rajasthan; the Vindhya plateau, including the Rajmahal traps in the lower Gangetic plains (Lahiri 1992: 37, 281, 49, 222); and Gujarat (Coningham 1995b: 64). Agate and chalcedony have also been found in trap dykes in the old Madras and Salem districts, both in Tamil Nadu, southern India. The Saran district in the middle Gangetic plains has also yielded agate and chalcedony. Agate and jasper have been identified at Biana near Agra in

northern India. Jasper has been yielded from Patna and Bhagalpur districts in the middle Gangetic plains (Lahiri 1992). The Deccan traps of western India also produce chalcedony and its different varieties (Krishnan 1982: 419). Jasper is found near Pomparippu and chalcedony in the Kal Aru basin of northern Sri Lanka, however these are rare deposits (Cooray 1984: 167). In terms of the presence of these minerals at other archaeological sites, Taxila in Pakistan has yielded these minerals, such as a carnelian ring-stone, an agate bowl, a chalcedony burnisher and beads, and jasper beads (Lahiri 1992: 274). Carnelian, agate and chalcedony beads were all discovered at Ahichchhatra and Hastinapur in the upper Gangetic plains. Agate, jasper and chalcedony weights were found at Ayodhya, while agate and carnelian beads were present at Atranjikhara. Microliths of agate, chalcedony and carnelian have been found at Maski, while Brahmagiri has quantities of carnelian blades and jasper microliths. Carnelian beads are common in central India at the sites of Garh-Kalika, Tripuri, Maheswar, Navdatoli and Nagda. In Gujarat, carnelian and agate are found at Somnath, Nagara, Nagal and Dhatva (Lahiri 1992).

8.4.1 Chert

Thirteen pieces of chert have been recovered from trench ASW2: ten pieces of raw material, two pieces of bead debitage and one collared sphere bead. They range from

periods B to G with the majority occurring in period D, thus within a time scale from c. 200 cal. BC to AD 1100.

Special find no: 1290
Stratigraphic phase: C
Description: 1 piece of chert

Context: 41se
Weight: 0.86g

Special find no: 707
Stratigraphic phase: XCV
Description: 1 piece of chert
Dimensions: 1.2cm x 1cm

Context: 182se
Weight: 4.3g

Special find no: 323
Stratigraphic phase: XCV
Description: 1 piece of chert
Dimensions: 3cm x 1.5cm

Context: 111sw
Weight: 10g

Special find no: 1795
Stratigraphic phase: XCV
Description: 1 piece of chert

Context: 324ne
Weight: 0.26g

Special find no: 1568
Stratigraphic phase: XCV
Description: 1 piece of chert

Context: 262se
Weight: 4.53g

Special find no: 6235
Stratigraphic phase: XCV
Description: 1 piece of chert

Context: 313sw
Weight: 1.63g

Special find no: 2209
Stratigraphic phase: XCV
Description: 1 piece of chert

Context: 332se
Weight: 0.87g

Special find no: 2528
Stratigraphic phase: XCV
Description: 1 piece of chert

Context: 334ne
Weight: 0.6g

Special find no: 2703
Stratigraphic phase: XCIII
Description: chips of chert

Context: 363ne
Weight: 1.8g

Special find no: 298
Stratigraphic phase: XCIII
Description: 1 piece of chert
Dimensions: 2cm x 1.4cm

Context: 200sw
Weight: 5g

8.4.1.1 Bead debitage

Special find no: 5992
Stratigraphic phase: XCV
Description: Bead debitage
Dimensions: 0.41cm x 0.54cm

Context: 324ne
Weight: 0.17g

Special find no: 8046
Stratigraphic phase: LXXXI
Description: Bead debitage

Context: 467nw
Weight: 0.84g

8.4.1.2 Collared sphere bead

Special find no: 2576
Stratigraphic phase: XCIII
Description: Collared sphere bead
Dimensions: 1.84cm length

Context: 345sw
Weight: 4.25g

8.4.2 Carnelian

A total of 102 pieces of carnelian have been discovered, most of which are beads or bead-related products, along with 13 rings. They date from c. 510 cal. BC to AD 1100, with the majority appearing in period G. Bead debitage is

the predominant form found, suggesting manufacture of carnelian beads at Anuradhapura, especially during period G (c. 200 cal. BC–AD 130 cal.).

8.4.2.1 Bead blanks

Special find no: 284
Stratigraphic phase: XCV
Description: Bead blank
Dimensions: 2.7cm x 1.2cm
[Fig. 8.3]

Context: 56sw
Weight: 5.2g

Special find no: 1050
Stratigraphic phase: C
Description: Bead blank
Dimensions: 2.3cm x 0.76cm
[Plate 8.2]

Context: 41sw
Weight: 0.93g

Special find no: 1051
Stratigraphic phase: C
Description: Bead blank
Dimensions: 1.37cm x 0.83cm

Context: 41sw
Weight: 0.4g

Special find no: 1254
Stratigraphic phase: XCV
Description: Bead blank
Dimensions: 1.5cm x 0.4cm

Context: 88ne
Weight: 0.58g

Special find no: 1659
Stratigraphic phase: XCV
Description: Bead blank
Dimensions: 1.2cm x 0.8cm

Context: 298ne
Weight: 1.45g

Special find no: 1572
Stratigraphic phase: XCV
Description: Bead blank
Dimensions: 2cm x 1.2cm

Context: 186nw
Weight: 4.1g

Special find no: 5808
Stratigraphic phase: XCV
Description: Bead blank
Dimensions: 1.14cm x 0.86cm

Context: 204ne
Weight: 1.9g

Special find no: 2784 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.83cm length	Context: 368ne Weight: 3.13g	Special find no: 8798 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.77cm x 1.36cm	Context: 73sw Weight: 3.82g
Special find no: 2875 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.8cm x 1.15cm	Context: 364ne Weight: 5.36g	Special find no: 6226 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.32cm x 0.7cm	Context: 355ne Weight: 1.43g
Special find no: 2075 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.63cm x 0.85cm	Context: 306se Weight: 5.29g	Special find no: 6137 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.6cm x 0.43cm	Context: 379sw Weight: 0.93g
Special find no: 5860 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.36cm x 1.07cm	Context: 399ne Weight: 9.17g	Special find no: 6691 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.27cm x 1.08cm	Context: 416ne Weight: 2.15g
Special find no: 5800 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.2cm x 0.92cm	Context: 403nw Weight: 2.23g	Special find no: 5805 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.39cm x 0.9cm	Context: 403nw Weight: 1.32g
Special find no: 6455 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.34cm x 0.76cm	Context: 416ne Weight: 1.92g	Special find no: 6440 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.42cm x 1.34cm	Context: 416ne Weight: 5.45g
Special find no: 5998 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.02cm x 1.13cm	Context: 395sw Weight: 1.83g	Special find no: 6441 Stratigraphic phase: XCI Description: Bead blank Dimensions: 4.32cm x 1.51cm	Context: 416ne Weight: 14.6g
Special find no: 16038 Stratigraphic phase: LXXII Description: Bead blank Dimensions: 1.13cm x 1cm	Context: 715se Weight: 2.09g	Special find no: 15166 Stratigraphic phase: LXX Description: Bead blank Dimensions: 2.47cm x 1.3cm	Context: 616se Weight: 0.41g
Special find no: 15424 Stratigraphic phase: LXXII Description: Bead blank Dimensions: 0.95cm x 1.44cm	Context: 602ne Weight: 2.01g	Special find no: 10162 Stratigraphic phase: LXXIII Description: Bead blank Dimensions: 1.24cm x 1.01cm	Context: 635nw Weight: 1.47g
Special find no: 7041 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 0.81cm x 1.35cm	Context: 494ne Weight: 1.69g	Special find no: 5848 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 2.06cm x 0.78cm	Context: 390sw Weight: 1.88g
Special find no: 6626 Stratigraphic phase: LXXXVIII Description: Bead blank Dimensions: 2.3cm x 1.01cm	Context: 430se Weight: 4.01g		

3.4.2.2 Bead debitage

Special find no: 1232 Stratigraphic phase: XCVII Description: Bead debitage Dimensions: 0.8cm x 0.3cm	Context: 25nw Weight: 0.13g	Special find no: 15465 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.61cm x 0.93cm	Context: 600 Weight: 0.95g
Special find no: 1398 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.1cm x 0.4cm	Context: 123se Weight: 0.61g	Special find no: 1542 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.7cm x 1.6cm	Context: 259sw Weight: 0.78g
Special find no: 1679 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1cm x 0.53cm	Context: 263nw Weight: 0.13g	Special find no: 1646 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.95cm x 0.52cm	Context: 272se Weight: 1.64g
Special find no: 5852 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.99cm x 0.66cm	Context: 283ne Weight: 0.7g	Special find no: 5819 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.95cm x 0.67cm	Context: 313sw Weight: 0.53g

Special find no: 1819 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.9cm x 0.45cm	Context: 316ne Weight: 0.95g	Special find no: 6130 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.93cm x 0.13cm	Context: 326nw Weight: 0.23g
Special find no: 5779 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 2.09cm x 0.57cm	Context: 334ne Weight: 1.42g	Special find no: 5710 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.96cm x 0.3cm	Context: 356nw Weight: 0.31g
Special find no: 2072 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.4cm x 0.2cm	Context: 600 Weight: 0.37g	Special find no: 15464 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.98cm x 1.07cm	Context: 600 Weight: 2.87g
Special find no: 5840 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 2.79cm x 0.76cm	Context: 359nw Weight: 4.12g	Special find no: 5657 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.73cm x 0.52cm	Context: 365nw Weight: 0.33g
Special find no: 2923 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.3cm x 0.45cm	Context: 367sw Weight: 0.88g	Special find no: 5760 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.93cm x 0.47cm	Context: 367sw Weight: 0.28g
Special find no: 1944 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.18cm x 0.25cm	Context: 73se Weight: 0.45g	Special find no: 6212 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 1.9cm x 0.5cm	Context: 355ne Weight: 1.04g
Special find no: 5903 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 2.03cm x 1.65cm	Context: 304ne Weight: 1.97g	Special find no: 2102 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.6cm x 0.45cm	Context: 306se Weight: 0.21g
Special find no: 6068 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.61cm x 0.23cm	Context: 345sw Weight: 0.05g	Special find no: 5870 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.75cm x 0.36cm	Context: 413se Weight: 0.73g
Special find no: 6293 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.35cm x 0.6cm	Context: 386nw Weight: 1.31g	Special find no: 6324 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 2.25cm x 0.4cm	Context: 386nw Weight: 1.25g
Special find no: 6531 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 2.44cm x 0.49cm	Context: 422sw Weight: 2.35g	Special find no: 6584 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.48cm x 0.17cm	Context: 424nw Weight: 0.32g
Special find no: 6692 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.25cm x 0.14cm	Context: 416ne Weight: 0.14g	Special find no: 15378 Stratigraphic phase: LXXII Description: Bead debitage Dimensions: 1.66cm x 0.71cm	Context: 601se Weight: 0.32g
Special find no: 8104 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 1.19cm x 0.35cm	Context: 492se Weight: 0.39g	Special find no: 7175 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 2.58cm x 0.82cm	Context: 492se Weight: 3.11g
Special find no: 8053 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 1.9cm x 1.26cm	Context: 493se Weight: 4.08g	Special find no: 7186 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 1.2cm x 0.46cm	Context: 494ne Weight: 0.55g
Special find no: 6957 Stratigraphic phase: LXXXI Description: Bead debitage Dimensions: 1.43cm x 0.27cm	Context: 487ne Weight: 0.28g	Special find no: 10161 Stratigraphic phase: LXXXIII Description: Bead debitage Dimensions: 2.11cm x 0.98cm	Context: 605nw Weight: 3.55g
Special find no: 5818 Stratigraphic phase: LXXXVI Description: Bead debitage Dimensions: 1.49cm x 0.32cm	Context: 390ne Weight: 0.75g	Special find no: 15431 Stratigraphic phase: LXVIII Description: Bead debitage Dimensions: 1.6cm x 1.09cm	Context: 615sw Weight: 0.4g
Special find no: 6514 Stratigraphic phase: LXXXVIII Description: Bead debitage Dimensions: 3.07cm x 0.66cm	Context: 419sw Weight: 3.36g	Special find no: 8136 Stratigraphic phase: LXXXVIII Description: Bead debitage Dimensions: 1.29cm x 0.31cm	Context: 426ne Weight: 0.58g

Special find no: **16289**
Stratigraphic phase: **LIII**
Description: **Bead debitage**
Dimensions: **0.3cm x 1.26cm**

Context: **729sw**
Weight: **0.96g**

Special find no: **17283**
Stratigraphic phase: **XXIII**
Description: **Bead debitage**
Dimensions: **0.1cm x 0.83cm**

Context: **1125se**
Weight: **0.06g**

8.4.2.3 Rings

Special find no: **1594**
Stratigraphic phase: **XCV**
Description: **Ring**
Dimensions: **0.35cm length**

Context: **270se**
Weight: **0.39g**

Special find no: **6539**
Stratigraphic phase: **XCI**
Description: **Ring**
Dimensions: **3cm x 0.36cm**

Context: **406sw**
Weight: **0.73g**

Special find no: **6704**
Stratigraphic phase: **XCI**
Description: **Ring**
Dimensions: **3cm x 0.38cm**

Context: **416ne**
Weight: **0.6g**

Special find no: **5681**
Stratigraphic phase: **XCI**
Description: **Ring**
Dimensions: **2cm x 0.38cm**

Context: **422sw**
Weight: **1.11g**

Special find no: **6610**
Stratigraphic phase: **XCI**
Description: **Ring**
Dimensions: **3cm x 0.36cm**

Context: **425sw**
Weight: **0.81g**

Special find no: **6735**
Stratigraphic phase: **XCI**
Description: **Ring**
Dimensions: **0.4cm length**

Context: **431sw**
Weight: **0.52g**

Special find no: **10044**
Stratigraphic phase: **LXX**
Description: **Ring**
Dimensions: **0.42cm x 0.42cm**
[Fig. 8.1]

Context: **606sw**
Weight: **1.95g**

Special find no: **15855**
Stratigraphic phase: **LXXXII**
Description: **Ring**
Dimensions: **0.37cm x 0.25cm**
[Fig. 8.1]

Context: **601**
Weight: **0.58g**

Special find no: **7044**
Stratigraphic phase: **LXXV**
Description: **Ring**
Dimensions: **2cm x 0.44cm**
[Fig. 8.1]

Context: **494ne**
Weight: **0.93g**

Special find no: **7203**
Stratigraphic phase: **LXXV**
Description: **Ring**
Dimensions: **2.5cm x 0.26cm**

Context: **494ne**
Weight: **0.26g**

Special find no: **6871**
Stratigraphic phase: **LXXXI**
Description: **Ring**
Dimensions: **3cm x 0.42cm**

Context: **470nw**
Weight: **1.13g**

Special find no: **6983**
Stratigraphic phase: **LXXXI**
Description: **Ring**
Dimensions: **2.5cm x 0.44cm**

Context: **470sw**
Weight: **1.57g**

Special find no: **7162**
Stratigraphic phase: **LXXX**
Description: **Ring**
Dimensions: **3cm x 0.41cm**
[Fig. 8.1]

Context: **495sw**
Weight: **1.13g**

8.4.2.4 Jewellery insert

Special find no: **261**
Stratigraphic phase: **XCV**
Description: **Jewellery insert with carving of humped bull**
Dimensions: **0.95cm x 0.78cm**
[Plate 8.3]

Context: **324ne**
Weight: **1.1g**

8.4.2.5 Shaped blank

Special find no: **2289**
Stratigraphic phase: **XCV**
Description: **Shaped blank**
Dimensions: **1.45cm x 0.92cm**

Context: **325ne**
Weight: **2.45g**

Special find no: **2871**
Stratigraphic phase: **XCIII**
Description: **Shaped blank**
Dimensions: **1.25cm x 0.91cm**
[Plate 8.3]

Context: **358se**
Weight: **2.37g**

Special find no: **2444**
Stratigraphic phase: **XCII**
Description: **Shaped blank**
Dimensions: **1.3cm x 0.93cm**

Context: **364ne**
Weight: **2.8g**

Special find no: **6330**
Stratigraphic phase: **LXXXVI**
Description: **Shaped blank**
Dimensions: **1.78cm x 0.68cm**

Context: **390se**
Weight: **1.33g**

8.4.2.6 Sphere

Special find no: **1946**
Stratigraphic phase: **XCV**
Description: **Sphere**
Dimensions: **0.39cm x 0.45cm**

Context: **334ne**
Weight: **0.25g**

Special find no: **17281**
Stratigraphic phase: **XXI**
Description: **Sphere**
Dimensions: **0.35cm x 0.47cm**
[Fig. 8.1]

Context: **1195nw**
Weight: **0.08g**

8.4.2.7 Squashed sphere

Special find no: 15136 Context: 600
Stratigraphic phase: XCV Weight: 0.66g
Description: Squashed sphere
Dimensions: 0.89cm x 0.46cm
[Fig. 8.1]

Special find no: 6503 Context: 417nw
Stratigraphic phase: XCI Weight: 1.24g
Description: Squashed sphere
Dimensions: 1.16cm x 0.58cm

Special find no: 6339 Context: 385se
Stratigraphic phase: XCI Weight: 0.98g
Description: Squashed sphere
Dimensions: 1.01cm x 0.63cm

Special find no: 6703 Context: 416ne
Stratigraphic phase: XCI Weight: 0.76g
Description: Squashed sphere
Dimensions: 0.96cm x 0.54cm

8.4.2.8 Barrel

Special find no: 6297 Context: 386nw
Stratigraphic phase: XCI Weight: 0.98g
Description: Barrel-shaped bead
Dimensions: 1.57cm x 0.7cm
[Fig. 8.1]

Special find no: 7123 Context: 492se
Stratigraphic phase: LXXV Weight: 1.62g
Description: Barrel-shaped bead
Dimensions: 1.58cm x 0.87cm
[Figs 8.1, 8.3]

8.4.2.9 Disc

Special find no: 6396 Context: 404ne
Stratigraphic phase: XCI Weight: 2.42g
Description: Disc-shaped bead
Dimensions: 1.3cm x 0.8cm

8.4.2.10 Oval bead

Special find no: 5876 Context: 409sw
Stratigraphic phase: LXXXVIII Weight: 0.24g
Description: Oval bead
Dimensions: 0.62cm x 0.43cm

Special find no: 10500 Context: 977ne
Stratigraphic phase: XXVIII Weight: 0.6g
Description: Oval bead
Dimensions: 0.52cm x 0.46cm

8.4.2.11 Intaglio or ring blank

Special find no: 5822 Context: 414sw
Stratigraphic phase: XCI Weight: 4.19g
Description: Intaglio or ring blank
Dimensions: 3.2cm x 1.97cm
[Plate 1.4]

8.4.2.12 Hexagonal bead

Special find no: 6566 Context: 417nw
Stratigraphic phase: XCI Weight: 1.26g
Description: Hexagonal bead
Dimensions: 1.68cm x 0.79cm

Special find no: 6890 Context: 467nw
Stratigraphic phase: LXXXI Weight: 0.3g
Description: Hexagonal bead
Dimensions: 0.7cm x 0.57cm

8.4.2.13 Earplug-shaped bead

Special find no: 6685 Context: 427se
Stratigraphic phase: XCI Weight: 1.13g
Description: Earplug-shaped bead
Dimensions: 0.76cm x 0.88cm

8.4.2.14 Button bead

Special find no: 6650 Context: 431nw
Stratigraphic phase: XCI Weight: 7.04g
Description: Button bead
Dimensions: 1cm x 2.73cm
[Plate 8.4; Fig. 8.1]

8.4.2.15 Spherical disc

Special find no: **15156** Context: **601se**
 Stratigraphic phase: **LXXII** Weight: **0.31g**
 Description: **Spherical disc bead**
 Dimensions: **0.09cm x 1.06cm**

Special find no: **15157** Context: **601se**
 Stratigraphic phase: **LXXII** Weight: **0.28g**
 Description: **Spherical disc bead**
 Dimensions: **0.09cm x 1.01cm**

Special find no: **15155** Context: **623nw**
 Stratigraphic phase: **LXXII** Weight: **0.23g**
 Description: **Spherical disc bead**
 Dimensions: **0.12cm x 0.87cm**

8.4.2.16 Faceted bead

Special find no: **10568** Context: **977nw**
 Stratigraphic phase: **XXVIII** Weight: **0.4g**
 Description: **Faceted bead**
 Dimensions: **0.64cm x 0.74cm**
 [Fig. 8.1]

Special find no: **10569** Context: **977nw**
 Stratigraphic phase: **XXVIII** Weight: **0.47g**
 Description: **Faceted bead**
 Dimensions: **0.65cm x 0.74cm**

Special find no: **10573** Context: **977sw**
 Stratigraphic phase: **XXVIII** Weight: **0.69g**
 Description: **Faceted bead**
 Dimensions: **0.73cm x 0.89cm**

8.4.2.17 Short tube

Special find no: **17474** Context: **1208ne**
 Stratigraphic phase: **XXI** Weight: **0.58g**
 Description: **Tube-shaped bead**
 Dimensions: **0.64cm x 0.7cm**

8.4.3 Agate

A total of 12 beads have been discovered from trench ASW2, ranging from period G to D and thus dating from

c. 200 BC to AD 1100. There is a peak in period F along with a variety of shapes.

8.4.3.1 Bead blanks

Special find no: **5993** Context: **283**
 Stratigraphic phase: **XCV** Weight: **0.28g**
 Description: **Bead blank**
 Dimensions: **0.5cm x 0.77cm**

Special find no: **8667** Context: **304sw**
 Stratigraphic phase: **XCIII** Weight: **4.92g**
 Description: **Bead blank**
 Dimensions: **1.52cm x 1.03cm**

Special find no: **8001** Context: **358**
 Stratigraphic phase: **XCIII** Weight: **0.29g**
 Description: **Bead blank**
 Dimensions: **0.62cm x 0.76cm**

Special find no: **5991** Context: **369**
 Stratigraphic phase: **XCIII** Weight: **0.67g**
 Description: **Bead blank**
 Dimensions: **0.73cm x 1.16cm**

Special find no: **5998** Context: **395sw**
 Stratigraphic phase: **XCI** Weight: **1.83g**
 Description: **Bead blank**
 Dimensions: **1.02cm x 1.13cm**

8.4.3.2 Lugged sphere bead

Special find no: **2228** Context: **370sw**
 Stratigraphic phase: **XCIII** Weight: **1.24g**
 Description: **Lugged sphere**
 Dimensions: **1.2cm x 1.35cm**

Special find no: **2231** Context: **370sw**
 Stratigraphic phase: **XCIII** Weight: **1.52g**
 Description: **Lugged sphere**
 Dimensions: **1.53cm x 1.4cm**
 [Fig. 8.1]

Special find no: **2232** Context: **370sw**
 Stratigraphic phase: **XCIII** Weight: **1.6g**
 Description: **Lugged sphere**
 Dimensions: **1cm x 1.27cm**
 [Fig. 8.1]

8.4.3.3 Shaped blank

Special find no: **5999** Context: **358**
 Stratigraphic phase: **XCIII** Weight: **0.4g**
 Description: **Shaped blank**
 Dimensions: **0.58cm x 0.62cm**

8.4.3.4 Oval bead

Special find no: 2078 Context: 306se
Stratigraphic phase: XCIII Weight: 1.01g
Description: **Oval**
Dimensions: 0.9cm x 0.95cm
[Fig. 8.1]

8.4.3.5 Lugged triangular bead

Special find no: 6369 Context: 399se
Stratigraphic phase: XCI Weight: 0.65g
Description: **Lugged triangular**
Dimensions: 0.89cm x 0.5cm

8.4.3.6 Squashed sphere

Special find no: 6485 Context: 414sw
Stratigraphic phase: XCI Weight: 1.41g
Description: **Squashed sphere**
Dimensions: 1.15cm x 0.7cm
[Fig. 8.2]

8.4.4 Chalcedony

Three beads of chalcedony have been found from periods B and G: a time range from c. 200 BC to AD 1100.

8.4.4.1 Rod-shaped blank

Special find no: 5141 Context: 9se
Stratigraphic phase: CVI Weight: 3.1g
Description: **Rod or undrilled blank**
Dimensions: 1.07cm length
[Fig. 8.2]

8.4.4.2 Bead debitage

Special find no: 1266 Context: 41sw
Stratigraphic phase: C Weight: 1.54g
Description: **Bead debitage**
Dimensions: 1.6cm x 0.8cm

8.4.4.3 Cube-shaped bead

Special find no: 5667 Context: 427
Stratigraphic phase: XCI Weight: 0.82g
Description: **Cube**
Dimensions: 1.13cm x 0.35cm
[Fig. 8.2]

8.4.5 Jasper

Two beads of jasper, one of which has been identified as Egyptian, have been found from period B (c. AD 600–1100).

Special find no: 113 Context: 34ne
Stratigraphic phase: XCVIII Weight: 0.75g
Description: **Egyptian jasper**
Dimensions:

Special find no: 870 Context: 25nw
Stratigraphic phase: XCVII Weight: 0.9g
Description:
Dimensions:

8.4.6 Sard

The only sard object is debitage from period I (c. 360 cal. BC–190 cal. BC).

Special find no: 10576 Context: 1101se
Stratigraphic phase: XXVI Weight: 4.43g
Description: **Bead debitage**
Dimensions: 1.14cm x 1.99cm

8.5 Garnet

Normally associated with metamorphic rocks, this semi-precious gem displays a variety of colours, notably red or brown (Whitten and Brooks 1972: 197). It is a very hard mineral and is sometimes used as an abrasive as well as jewellery. The presence of garnet in the Indian subcontinent is common, such as at the Mogok stone tract, Burma; Kishengarh, Jaipur and Mewar in Rajasthan; Nellore in Andhra Pradesh; Tirunelveli and south Kanara in Madras (Tamil Nadu); and in southwest Sri Lanka (Krishnan 1982: 159). Garnets are also common in the Highland Series in north-central Sri Lanka, such as the garnet-sillimanite granitic gneisses near Dambulla (Cooray 1984: 81). In fact, the garnets from Sri Lanka are unique, owing to apatite inclusions, and are thus diagnostic of a Sri Lankan origin. However,

minerals from metamorphic rocks produce small crystals and are an unlikely source for the larger gems, which have been formed in skarns (contact between intrusive granite and marble) (Cooray 1984). Large brown garnets are known from the skarn at Demodera, southern Sri Lanka. Garnet has been found at Piprahwa in the upper Gangetic plains (Lahiri 1992) and at Kausambi in the middle Gangetic plains. Nagda in central India has garnet beads, as has Maski in northern Karnataka. Eighty-one pieces of garnet have been found, dating from c. 510 cal. BC to AD 1100, with the majority occurring in period F, phases XCIII and XCII. Debitage dominates the sub-assembly, indicating bead manufacture, and the variety of shapes suggests specialist production.

8.5.1 Bead blanks

Special find no: 1682
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 2.1cm x 0.6cm

Context: 272se
Weight: 4.08g

Special find no: 5850
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 0.61cm x 0.54cm

Context: 283ne
Weight: 0.86g

Special find no: 1814
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 1cm x 0.48cm

Context: 316ne
Weight: 0.54g

Special find no: 2294
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 0.78cm x 0.4cm

Context: 325ne
Weight: 0.7g

Special find no: 8676
Stratigraphic phase: XCII
Description: **Bead blank**
Dimensions: 1.75cm x 1.59cm

Context: 365nw
Weight: 5.64g

Special find no: 2946
Stratigraphic phase: XCIII
Description: **Bead blank**
Dimensions: 1.63cm x 0.89cm

Context: 304ne
Weight: 5.14g

Special find no: 16819
Stratigraphic phase: XXVIII
Description: **Bead blank**
Dimensions: 0.84cm x 1.7cm

Context: 977sw
Weight: 4.19g

Special find no: 6224
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 0.9cm x 0.33cm

Context: 313sw
Weight: 0.42g

Special find no: 8023
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 1.4cm x 0.89cm

Context: 410sw
Weight: 2.8g

Special find no: 2191
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 1cm x 0.45cm

Context: 316ne
Weight: 0.9g

Special find no: 2295
Stratigraphic phase: XCV
Description: **Bead blank**
Dimensions: 0.65cm x 0.5cm

Context: 325ne
Weight: 0.62g

Special find no: 5590
Stratigraphic phase: XCIII
Description: **Bead blank**
Dimensions: 1cm x 0.33cm

Context: 358se
Weight: 0.52g

Special find no: 2805
Stratigraphic phase: XCIII
Description: **Bead blank**
Dimensions: 0.7cm x 0.47cm

Context: 374nw
Weight: 0.6g

Special find no: 10513
Stratigraphic phase: XXVIII
Description: **Bead blank**
Dimensions: 2.34cm x 1.99cm

Context: 977se
Weight: 12.12g

8.5.2 Bead debitage

Special find no: 1266
Stratigraphic phase: C
Description: **Bead debitage**
Dimensions: 1.6cm x 0.8cm

Context: 41sw
Weight: 1.54g

Special find no: 1273
Stratigraphic phase: CXIII
Description: **Bead debitage**
Dimensions: 0.4cm x 0.2cm

Context: 71sw
Weight: 0.07g

Special find no: 5851
Stratigraphic phase: XCV
Description: **Bead debitage**
Dimensions: 0.8cm x 0.38cm

Context: 283ne
Weight: 0.27g

Special find no: 1211
Stratigraphic phase: CXIII
Description: **Bead debitage**
Dimensions: 1.25cm x 0.42cm

Context: 71sw
Weight: 0.6g

Special find no: 8014
Stratigraphic phase: XCV
Description: **Bead debitage**
Dimensions: 0.63cm x 0.54cm

Context: 313sw
Weight: 0.31g

Special find no: 2348
Stratigraphic phase: XCV
Description: **Tiny chip of bead debitage**
Dimensions: Chip

Context: 325ne
Weight: 0.05g

Special find no: 8015 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.37cm x 0.6cm	Context: 313sw Weight: 0.22g	Special find no: 1801 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.85cm x 0.35cm	Context: 324ne Weight: 0.33g
Special find no: 2346 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.6cm x 0.5cm	Context: 325ne Weight: 0.35g	Special find no: 2347 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.6cm x 0.4cm	Context: 325ne Weight: 0.33g
Special find no: 15552 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.61cm x 0.44cm	Context: 600 Weight: 0.28g	Special find no: 5668 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.68cm x 0.24cm	Context: 394sw Weight: 0.16g
Special find no: 5659 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.65cm x 0.24cm	Context: 365nw Weight: 0.13g	Special find no: 5660 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.53cm x 0.38cm	Context: 365nw Weight: 0.14g
Special find no: 2043 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.7cm x 0.3cm	Context: 304ne Weight: 0.14g	Special find no: 2101 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.85cm x 0.22cm	Context: 306se Weight: 0.18g
Special find no: 2044 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.7cm x 0.16cm	Context: 304ne Weight: 0.07g	Special find no: 2062 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.8cm x 0.3cm	Context: 304ne Weight: 0.24g
Special find no: 2063 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.66cm x 0.3cm	Context: 304ne Weight: 0.25g	Special find no: 2064 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.55cm x 0.25cm	Context: 304ne Weight: 0.16g
Special find no: 2065 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.56cm x 0.21cm	Context: 304ne Weight: 0.15g	Special find no: 2066 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.65cm x 0.24cm	Context: 304ne Weight: 0.17g
Special find no: 5008 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.75cm x 0.3cm	Context: 304ne Weight: 0.17g	Special find no: 5009 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.52cm x 0.15cm	Context: 304ne Weight: 0.09g
Special find no: 5010 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.61cm x 0.2cm	Context: 304ne Weight: 0.08g	Special find no: 5011 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.53cm x 0.25cm	Context: 304ne Weight: 0.08g
Special find no: 5012 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.51cm x 0.18cm	Context: 304ne Weight: 0.09g	Special find no: 5013 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.55cm x 0.3cm	Context: 304ne Weight: 0.06g
Special find no: 5014 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.55cm x 0.13cm	Context: 304ne Weight: 0.06g	Special find no: 5015 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.5cm x 0.11cm	Context: 304ne Weight: 0.04g
Special find no: 5016 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.5cm x 0.12cm	Context: 304ne Weight: 0.04g	Special find no: 5199 Stratigraphic phase: XCIII Description: 35 small chips of bead debitage Dimensions: chips [Plate 1.4]	Context: 304ne Weight: 3.43g
Special find no: 5216 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.46cm x 0.17cm	Context: 304ne Weight: 0.4g	Special find no: 5900 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.72cm x 0.51cm	Context: 304ne Weight: 2.18g
Special find no: 5897 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 0.83cm x 0.33cm	Context: 385se Weight: 0.38g	Special find no: 5896 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.02cm x 0.4cm	Context: 385se Weight: 0.64g
Special find no: 5826 Stratigraphic phase: XCI	Context: 400se Weight: 0.61g	Special find no: 5827 Stratigraphic phase: XCI	Context: 400se Weight: 0.25g

Description: **Bead debitage**
Dimensions: **0.84cm x 0.5cm**

Special find no: **8050**
Stratigraphic phase: **LXXXI**
Description: **Bead debitage**

Context: **467nw**
Weight: **0.42g**

Special find no: **17512**
Stratigraphic phase: **XXIII**
Description: **Bead debitage**
Dimensions: **0.38cm x 1.53cm**

Context: **1125se**
Weight: **0.65g**

Special find no: **17469**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.5cm x 1.02cm**

Context: **1172se**
Weight: **0.54g**

Special find no: **17471**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.36cm x 0.63cm**

Context: **1172se**
Weight: **0.24g**

Special find no: **10648**
Stratigraphic phase: **XX**
Description: **Bead debitage**
Dimensions: **0.38cm x 1.13cm**

Context: **1174nw**
Weight: **0.98g**

Description: **Bead debitage**
Dimensions: **0.72cm x 0.25cm**

Special find no: **10582**
Stratigraphic phase: **XXVII**
Description: **Bead debitage**
Dimensions: **0.24cm x 0.83cm**

Context: **1107se**
Weight: **0.37g**

Special find no: **17473**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.24cm x 0.55cm**

Context: **1172se**
Weight: **0.08g**

Special find no: **17470**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.24cm x 1.76cm**

Context: **1172se**
Weight: **0.26g**

Special find no: **17472**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.33cm x 0.75cm**

Context: **1172se**
Weight: **0.26g**

Special find no: **17290**
Stratigraphic phase: **XIX**
Description: **Bead debitage**
Dimensions: **0.25cm x 0.74cm**

Context: **1292se**
Weight: **0.05g**

8.5.3 Jewellery insert

Special find no: **1815**
Stratigraphic phase: **XCV**
Description: **Jewellery insert**
Dimensions: **0.73cm x 0.25cm**

Context: **316ne**
Weight: **0.35g**

Special find no: **2150**
Stratigraphic phase: **XCV**
Description: **Jewellery insert**
Dimensions: **0.74cm x 0.45cm**

Context: **301ne**
Weight: **0.63g**

Special find no: **2175**
Stratigraphic phase: **XCV**
Description: **Jewellery insert**
Dimensions: **0.85cm x 0.3cm**

Context: **324ne**
Weight: **0.14g**

Special find no: **1975**
Stratigraphic phase: **XCIII**
Description: **Jewellery insert**
Dimensions: **1.03cm x 0.54cm**

Context: **73nw**
Weight: **1.15g**

8.5.4 Intaglio blank

Special find no: **3619**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.56cm x 0.36cm**

Context: **370sw**
Weight: **0.21g**

Special find no: **3819**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.81cm x 0.27cm**

Context: **370sw**
Weight: **0.19g**

Special find no: **4978**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.57cm x 0.22cm**

Context: **370sw**
Weight: **0.14g**

Special find no: **3708**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.87cm x 0.45cm**

Context: **370sw**
Weight: **0.28g**

Special find no: **4443**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.66cm x 0.28cm**

Context: **370sw**
Weight: **0.16g**

Special find no: **4899**
Stratigraphic phase: **XCIII**
Description: **Intaglio blank**
Dimensions: **0.73cm x 0.22cm**

Context: **370sw**
Weight: **0.12g**

8.5.5 Spherical disc

Special find no: **15129**
Stratigraphic phase: **XCV**
Description: **Spherical disc**
Dimensions: **0.47cm x 0.45cm**

Context: **600**
Weight: **0.19g**

Special find no: **16340**
Stratigraphic phase: **XXXIX**
Description: **Spherical disc**
Dimensions: **0.43cm x 0.55cm**

Context: **831se**
Weight: **0.42g**

8.5.6 Sphere

Special find no: **15266**
Stratigraphic phase: **LXVIII**
Description: **Sphere**
Dimensions: **0.36cm x 0.51cm**

Context: **615nw**
Weight: **0.29g**

8.5.7 Rod

Special find no: 15306 Context: 630ne
Stratigraphic phase: LXXVI Weight: 1.76g
Description: Rod-shaped bead
Dimensions: 0.75cm x 1.06cm

8.5.8 Disc

Special find no: 15260 Context: 615
Stratigraphic phase: LXVIII Weight: 0.17g
Description: Disc bead
Dimensions: 0.82cm x 0.11cm

8.5.9 Faceted bead

Special find no: 16255 Context: 787se
Stratigraphic phase: XLIII Weight: 0.4g
Description: Faceted bead
Dimensions: 0.53cm x 0.63cm
[Fig. 8.2]

8.5.10 Angular disc

Special find no: 10472 Context: 977ne
Stratigraphic phase: XXVIII Weight: 0.46g
Description: Angular disc
Dimensions: 0.46cm x 0.75cm

8.5.11 Shaped blank

Special find no: 17603 Context: 1113nw
Stratigraphic phase: XXVII Weight: 0.73g
Description: Shaped blank
Dimensions: 0.24cm x 0.66cm

8.5.12 Rectangular spacer

Special find no: 17457 Context: 1172se
Stratigraphic phase: XXII Weight: 0.19g
Description: Rectangular spacer
Dimensions: 0.54cm x 0.24cm

8.6 Amethyst

This mineral is a form of transparent quartz; it varies from deep purple to a pale blue colour or may even be colourless (Roberts *et al.* 1974: 504). It is commonly found in volcanic rocks such as the Deccan traps of central India (Krishnan 1982: 419). Amethyst beads have also been found at Taxila in Pakistan and at Ahichchhatra, Jakhara, Mathura and Sravasti (upper Gangetic plains) and Maski (northern Karnataka) (Lahiri 1992). A total of 91 amethyst objects have been

discovered, ranging from period I to B and thus dating from c. 360 cal. BC to AD 1100. The peak is in period F with 32 objects, including bead blanks, sphere-shaped beads and debitage. Period G follows with 24 artefacts and has the widest variety of objects, consisting of bead blanks, lugged triangular, squashed sphere, lugged barrel, squashed, and lugged sphere beads, debitage and a ring

8.6.1 Bead blanks

Special find no: 1045 Context: 41sw
Stratigraphic phase: C Weight: 2.11g
Description: Bead blank
Dimensions: 1.33cm x 1.11cm

Special find no: 1046 Context: 41sw
Stratigraphic phase: C Weight: 0.67g
Description: Bead blank
Dimensions: 1.3cm x 1.2cm

Special find no: 1465 Context: 41sw
Stratigraphic phase: C Weight: 2.64g
Description: Bead blank
Dimensions: 2cm x 0.8cm

Special find no: 1048 Context: 41sw
Stratigraphic phase: C Weight: 0.6g
Description: Bead blank
Dimensions: 0.91cm x 1.23cm

Stone Objects

Special find no: 1272 Stratigraphic phase: C Description: Bead blank Dimensions: 0.9cm x 0.3cm	Context: 41se Weight: 0.25g	Special find no: 1190 Stratigraphic phase: XCVII Description: Bead blank Dimensions: 2.6cm x 1.6cm	Context: 25ne Weight: 5.94g
Special find no: 1384 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.6cm x 0.5cm	Context: 103nw Weight: 0.92g	Special find no: 1538 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.53cm x 1.2cm	Context: 254se Weight: 2.15g
Special find no: 2367 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.85cm x 1.35cm	Context: 256se Weight: 6.38g	Special find no: 2355 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.1cm x 1.1cm	Context: 284nw Weight: 0.19g
Special find no: 5780 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.77cm x 1.24cm	Context: 334ne Weight: 3.23g	Special find no: 2764 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.8cm x 0.6cm	Context: 356ne Weight: 1.07g
Special find no: 5830 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.11cm x 0.58cm	Context: 401sw Weight: 3.52g	Special find no: 6968 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.48cm x 0.9cm	Context: 429sw Weight: 4.47g
Special find no: 2293 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.57cm x 0.7cm	Context: 325ne Weight: 1.72g	Special find no: 2940 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.4cm x 0.67cm	Context: 365nw Weight: 1.04g
Special find no: 1928 Stratigraphic phase: XCII Description: Bead blank Dimensions: 4.16cm x 3.3cm	Context: 73se Weight: 34.6g	Special find no: 8795 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.96cm x 1.28cm	Context: 73sw Weight: 6.39g
Special find no: 2874 Stratigraphic phase: XCII Description: Bead blank Dimensions: 0.85cm x 0.52cm	Context: 364ne Weight: 0.67g	Special find no: 6096 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.35cm x 0.43cm	Context: 378se Weight: 0.61g
Special find no: 2000 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.7cm x 1.2cm	Context: 304ne Weight: 3.59g	Special find no: 2001 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.45cm x 1.55cm	Context: 304ne Weight: 6.49g
Special find no: 2040 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.24cm x 0.9cm	Context: 304ne Weight: 1.48g	Special find no: 2932 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 4.65cm x 2.1cm	Context: 304ne Weight: 24.7g
Special find no: 2958 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.73cm x 1.2cm	Context: 304ne Weight: 2.97g	Special find no: 5021 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 3.6cm x 2.3cm	Context: 304ne Weight: 30.64g
Special find no: 6111 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.53cm x 1.45cm	Context: 305sw Weight: 11.93g	Special find no: 8493 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.14cm x 1.06cm	Context: 305sw Weight: 0.75g
Special find no: 8494 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.05cm x 1.13cm	Context: 305sw Weight: 0.66g	Special find no: 8673 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.52cm x 1.09cm	Context: 374nw Weight: 0.76g
Special find no: 5804 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.53cm x 1.88cm	Context: 403nw Weight: 2.36g	Special find no: 6341 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.1cm x 1.37cm	Context: 385se Weight: 12.57g
Special find no: 8495 Stratigraphic phase: XCI Description: Bead blank Dimensions: 0.88cm x 0.62cm	Context: 414sw Weight: 0.17g	Special find no: 6328 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.42cm x 0.63cm	Context: 400se Weight: 1.35g
Special find no: 6808 Stratigraphic phase: LXXXI Description: Bead blank Dimensions: 2.15cm x 1.79cm	Context: 470nw Weight: 3.78g	Special find no: 15621 Stratigraphic phase: LXXXIII Description: Bead blank Dimensions: 2.14cm x 1.35cm	Context: 632ne Weight: 2.28g

Special find no: 2387 Context: 375nw
Stratigraphic phase: LXXXVIII Weight: 0.91g
Description: **Bead blank**
Dimensions: 1.45cm x 0.4cm

8.6.2 Bead debitage

Special find no: 1047 Context: 41sw
Stratigraphic phase: C Weight: 0.56g
Description: **Bead debitage**
Dimensions: 1.4cm x 0.83cm

Special find no: 1191 Context: 25ne
Stratigraphic phase: XCVII Weight: 0.17g
Description: **Bead debitage**
Dimensions: 0.8cm x 0.33cm

Special find no: 1193 Context: 25ne
Stratigraphic phase: XCVII Weight: 0.18g
Description: **Bead debitage**
Dimensions: 1.1cm x 0.3cm

Special find no: 1248 Context: 42nw
Stratigraphic phase: XCV Weight: 0.41g
Description: **Bead debitage**
Dimensions: 1.07cm x 0.39cm

Special find no: 1251 Context: 88ne
Stratigraphic phase: XCV Weight: 0.35g
Description: **Bead debitage**
Dimensions: 0.89cm x 0.43cm

Special find no: 1253 Context: 88ne
Stratigraphic phase: XCV Weight: 0.26g
Description: **Bead debitage**
Dimensions: 1.34cm x 0.3cm

Special find no: 15554 Context: 600
Stratigraphic phase: XCV Weight: 0.07g
Description: **Bead debitage**
Dimensions: 0.67cm x 0.4cm

Special find no: 2837 Context: 373nw
Stratigraphic phase: XCV Weight: 0.46g
Description: **Bead debitage**
Dimensions: 1.45cm x 0.4cm

Special find no: 2455 Context: 364ne
Stratigraphic phase: XCII Weight: 0.34g
Description: **Bead debitage**
Dimensions: 0.95cm x 0.47cm

Special find no: 5656 Context: 365nw
Stratigraphic phase: XCII Weight: 0.4g
Description: **Bead debitage**
Dimensions: 1.06cm x 0.26cm

Special find no: 5756 Context: 367sw
Stratigraphic phase: XCII Weight: 0.61g
Description: **Bead debitage**
Dimensions: 1.25cm x 1.41cm

Special find no: 8679 Context: 366sw
Stratigraphic phase: XCII Weight: 0.28g
Description: **2 pieces of bead debitage**
Dimensions: 0.68cm x 0.88cm

Special find no: 5904 Context: 304ne
Stratigraphic phase: XCIII Weight: 0.64g
Description: **Bead debitage**
Dimensions: 1.05cm x 0.45cm

Special find no: 2098 Context: 306se
Stratigraphic phase: XCIII Weight: 0.26g
Description: **Bead debitage**
Dimensions: 1.2cm x 0.5cm

Special find no: 1049 Context: 41sw
Stratigraphic phase: C Weight: 0.16g
Description: **Bead debitage**
Dimensions: 0.84cm x 0.78cm

Special find no: 1192 Context: 25ne
Stratigraphic phase: XCVII Weight: 0.45g
Description: **Bead debitage**
Dimensions: 1.07cm x 0.45cm

Special find no: 2199 Context: 320ne
Stratigraphic phase: XCV Weight: 0.11g
Description: **Bead debitage**
Dimensions: 0.55cm x 0.23cm

Special find no: 1240 Context: 87sw
Stratigraphic phase: XCV Weight: 0.17g
Description: **Bead debitage**
Dimensions: 0.8cm x 0.4cm

Special find no: 1252 Context: 88ne
Stratigraphic phase: XCV Weight: 0.23g
Description: **Bead debitage**
Dimensions: 0.85cm x 0.35cm

Special find no: 1392 Context: 134ne
Stratigraphic phase: XCV Weight: 0.74g
Description: **Bead debitage**
Dimensions: 1.35cm x 0.5cm

Special find no: 15857 Context: 600
Stratigraphic phase: XCV Weight: 0.07g
Description: **Bead debitage**
Dimensions: 0.73cm x 0.28cm

Special find no: 2345 Context: 325ne
Stratigraphic phase: XCV Weight: 0.07g
Description: **Bead debitage**
Dimensions: 0.8cm x 0.15cm

Special find no: 6088 Context: 364ne
Stratigraphic phase: XCII Weight: 0.87g
Description: **Bead debitage**
Dimensions: 1.36cm x 0.24cm

Special find no: 5755 Context: 367sw
Stratigraphic phase: XCII Weight: 0.99g
Description: **Bead debitage**
Dimensions: 1.41cm x 0.76cm

Special find no: 5757 Context: 367sw
Stratigraphic phase: XCII Weight: 0.2g
Description: **Bead debitage**
Dimensions: 0.76cm x 0.36cm

Special find no: 2451 Context: 364ne
Stratigraphic phase: XCII Weight: 0.42g
Description: **Bead debitage**
Dimensions: 0.83cm x 0.42cm

Special find no: 5905 Context: 304ne
Stratigraphic phase: XCIII Weight: 0.06g
Description: **Bead debitage**
Dimensions: 0.74cm x 0.16cm

Special find no: 2099 Context: 306se
Stratigraphic phase: XCIII Weight: 0.24g
Description: **Bead debitage**
Dimensions: 1.15cm x 0.4cm

Special find no: 2100
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 1.1cm x 0.32cm

Context: 306se
Weight: 0.28g

Special find no: 5825
Stratigraphic phase: XCI
Description: **Bead debitage**
Dimensions: 0.91cm x 0.32cm

Context: 400se
Weight: 0.17g

Special find no: 6406
Stratigraphic phase: XCI
Description: **Bead debitage**
Dimensions: 0.7cm x 0.15cm

Context: 399se
Weight: 0.03g

Special find no: 5863
Stratigraphic phase: XCI
Description: **Bead debitage**
Dimensions: 2.17cm x 0.95cm

Context: 399ne
Weight: 2.54g

Special find no: 15432
Stratigraphic phase: LXXIII
Description: **Bead debitage**
Dimensions: 1.34cm x 0.88cm

Context: 635nw
Weight: 0.6g

Special find no: 8275
Stratigraphic phase: LXXV
Description: **Bead debitage**
Dimensions: 1.53cm x 0.52cm

Context: 493se
Weight: 3.73g

Special find no: 15305
Stratigraphic phase: LXXVI
Description: **Bead debitage**
Dimensions: 1.42cm x 0.48cm

Context: 630ne
Weight: 0.65g

Special find no: 6872
Stratigraphic phase: LXXXI
Description: **Bead debitage**
Dimensions: 1.05cm x 0.55cm

Context: 470nw
Weight: 0.74g

Special find no: 6713
Stratigraphic phase: LXXXVI
Description: **Bead debitage**
Dimensions: 0.75cm x 0.4cm

Context: 390se
Weight: 0.3g

Special find no: 6773
Stratigraphic phase: LXXXVII
Description: **Bead debitage**
Dimensions: 1.2cm x 0.22cm

Context: 437ne
Weight: 0.23g

Special find no: 16997
Stratigraphic phase: XXVIII
Description: **Bead debitage**
Dimensions: 1.03cm x 1.59cm

Context: 977ne
Weight: 2.21g

6.3 Jewellery insert

Special find no: 2122
Stratigraphic phase: XCV
Description: **Jewellery insert**
Dimensions: 1.2cm x 0.65cm

Context: 316ne
Weight: 0.88g

6.4 Undiagnostic

Special find no: 1951
Stratigraphic phase: XCV
Description: **Undiagnostic**
Dimensions: 0.07cm length

Context: 320ne
Weight: 0.01g

6.5 Spherical disc bead

Special find no: 1924
Stratigraphic phase: XCV
Description: **Spherical disc bead**
Dimensions: 0.43cm x 0.44cm

Context: 335ne
Weight: 0.09g

6.6 Shaped blank

Special find no: 2212
Stratigraphic phase: XCII
Description: **Shaped blank**
Dimensions: 2.75cm x 0.35cm
[fig. 8.3]

Context: 73ne
Weight: 5.98g

6.7 Sphere

Special find no: 2989
Stratigraphic phase: XCII
Description: **Sphere bead**
Dimensions: 0.6cm x 0.73cm

Context: 365nw
Weight: 0.51g

Special find no: 6006
Stratigraphic phase: XCII
Description: **Sphere bead**
Dimensions: 0.59cm x 0.97cm

Context: 367sw
Weight: 0.83g

6.8 Lugged triangular bead

Special find no: 6304
Stratigraphic phase: XCI
Description: **Lugged triangular bead**
Dimensions: 0.82cm x 0.49cm

Context: 386nw
Weight: 0.43g

8.6.9 Squashed sphere bead

Special find no: 5375 Context: 390se
Stratigraphic phase: LXXXVI Weight: 0.64g
Description: Squashed sphere bead
Dimensions: 0.95cm x 0.95cm

Special find no: 7195 Context: 493se
Stratigraphic phase: LXXV Weight: 0.42g
Description: Squashed sphere bead
Dimensions: 0.74cm x 0.43cm

8.6.10 Lugged barrel bead

Special find no: 7014 Context: 487ne
Stratigraphic phase: LXXXI Weight: 1.01g
Description: Lugged barrel bead
Dimensions: 1.5cm x 0.71cm
[Fig. 8.2]

Special find no: 8079 Context: 494ne
Stratigraphic phase: LXXV Weight: 0.82g
Description: Lugged barrel bead
Dimensions: 1.36cm x 0.67cm

8.6.11 Squashed bead

Special find no: 8112 Context: 494ne
Stratigraphic phase: LXXV Weight: 0.92g
Description: Squashed bead
Dimensions: 1.33cm x 0.41cm

8.6.12 Lugged sphere bead

Special find no: 15679 Context: 503ne
Stratigraphic phase: LXXVI Weight: 0.96g
Description: Lugged sphere bead
Dimensions: 0.99cm x 0.82cm
[Plate 1.4]

8.6.13 Ring

Special find no: 10179 Context: 670sw
Stratigraphic phase: LXIV Weight: 0.63g
Description: Ring
Dimensions: 0.34cm x 0.34cm

8.7 Amazonite

This green mineral is a form of microcline feldspar (alkali feldspar) (Roberts *et al.* 1974: 405). It is found in Nellore (Andhra Pradesh, southern India), Bihar (eastern India) (Krishnan 1982: 158) and in the granites of Tosham, northwest of Delhi (Lahiri 1992: 82). Palanpur in northern Gujarat is also a source of amazonite (*ibid.*: 106). Elsewhere, it occurs in Colorado and Virginia in

the USA, Canada, Mexico, Brazil, Norway, Sweden, Germany and Russia (Roberts *et al.* 1974: 405). Microcline is a common mineral in the Vijayan complex in Sri Lanka, which represents the local geology of Anuradhapura (Cooray 1984: 104). Navdatoli in central India has yielded amazonite beads (Lahiri 1992: 326).

8.7.1 Shaped blank

Special find no: 337 Context: 130sw
Stratigraphic phase: XCV Weight: 3.52g
Description: Shaped blank
Dimensions: 1.9cm x 1.12cm
[Fig. 8.3]

8.8 Quartz

Quartz is one of the most abundant minerals on the Earth's crust and an essential constituent of igneous, metamorphic and sedimentary rocks. It is found all over the world and is present in Sri Lanka, suggesting local

exploitation (Roberts *et al.* 1974). Quartz crystal beads have been discovered at Taxila in Pakistan and Ahichchhatra in the upper Gangetic plains and at Maski in northern Karnataka (Lahiri 1992: 274, 295, 344).

8.8.1 Clear quartz

A total of 231 clear quartz, or quartz crystal, objects have been discovered including a variety of bead shapes, along with bangles and rings, and debitage indicating local

manufacture. They range from period J to B and thus date from c. 510 cal. BC to AD 1100, with the largest frequency in period D, followed by period F.

8.8.1.1 *Bead blanks*

Special find no: 1054 Stratigraphic phase: C Description: Bead blank Dimensions: 1.25cm x 1.2cm	Context: 41sw Weight: 1.64g	Special find no: 1055 Stratigraphic phase: C Description: Bead blank Dimensions: 1.82cm x 0.9cm	Context: 41sw Weight: 0.94g
Special find no: 1063 Stratigraphic phase: C Description: Bead blank Dimensions: 1.57cm x 0.65cm	Context: 41sw Weight: 0.76g	Special find no: 1269 Stratigraphic phase: C Description: Bead blank Dimensions: 1.8cm x 0.5cm	Context: 41se Weight: 1.33g
Special find no: 1053 Stratigraphic phase: C Description: Bead blank Dimensions: 1.44cm x 1.1cm	Context: 41sw Weight: 1.36g	Special find no: 1395 Stratigraphic phase: CV Description: Bead blank Dimensions: 2.25cm x 0.85cm	Context: 18nw Weight: 4.25g
Special find no: 1235 Stratigraphic phase: CXI Description: Bead blank Dimensions: 2.3cm x 1.5cm	Context: 15se Weight: 3.55g	Special find no: 5058 Stratigraphic phase: CXIV Description: Bead blank Dimensions: 3.2cm x 1.45cm	Context: 4ne Weight: 10.76g
Special find no: 1390 Stratigraphic phase: XCVI Description: Bead blank Dimensions: 2.7cm x 1.1cm	Context: 129se Weight: 6.34g	Special find no: 1230 Stratigraphic phase: XCVII Description: Bead blank Dimensions: 2.05cm x 0.36cm	Context: 25nw Weight: 1.06g
Special find no: 5059 Stratigraphic phase: XCVII Description: Bead blank Dimensions: 1.8cm x 0.7cm	Context: 25ne Weight: 3.63g	Special find no: 1381 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.7cm x 0.95cm	Context: 134ne Weight: 1.44g
Special find no: 5263 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.18cm x 0.62cm	Context: 76ne Weight: 0.17g	Special find no: 1238 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.3cm x 0.85cm	Context: 87sw Weight: 0.92g
Special find no: 1239 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.1cm x 0.65cm	Context: 87sw Weight: 1.03g	Special find no: 1241 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.15cm x 0.6cm	Context: 87sw Weight: 0.76g
Special find no: 1087 Stratigraphic phase: XCV Description: Bead blank Dimensions: 3.22cm x 2.2cm	Context: 142se Weight: 14.71g	Special find no: 1088 Stratigraphic phase: XCV Description: Bead blank Dimensions: 3.9cm x 0.85cm	Context: 142se Weight: 11.22g
Special find no: 1380 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.15cm x 1.01cm	Context: 157se Weight: 2.74g	Special find no: 1404 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.55cm x 1.15cm	Context: 175nw Weight: 2.01g
Special find no: 1385 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.66cm x 0.35cm	Context: 190nw Weight: 1.54g	Special find no: 5380 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.93cm x 0.52cm	Context: 600 Weight: 1.38g
Special find no: 1557 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.9cm x 1cm	Context: 253nw Weight: 3.03g	Special find no: 1781 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.8cm x 1.8cm	Context: 269se Weight: 2.52g
Special find no: 1849 Stratigraphic phase: XCV Description: Bead blank Dimensions: 4.25cm x 1.4cm	Context: 272se Weight: 17.23g	Special find no: 1628 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.24cm x 1.63cm	Context: 273se Weight: 9.23g
Special find no: 6221 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.75cm x 0.5cm	Context: 313sw Weight: 1.7g	Special find no: 6243 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.55cm x 0.52cm	Context: 313sw Weight: 1.37g
Special find no: 5716 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.88cm x 0.43cm	Context: 324ne Weight: 5.36g	Special find no: 5718 Stratigraphic phase: XCV Description: Bead blank Dimensions: 0.91cm x 0.75cm	Context: 324ne Weight: 1.25g

Special find no: 2288 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.6cm x 1.7cm	Context: 325ne Weight: 3.31g	Special find no: 5776 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.89cm x 0.92cm	Context: 334ne Weight: 2.46g
Special find no: 8677 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.13cm x 1.22cm	Context: 334ne Weight: 2.46g	Special find no: 8678 Stratigraphic phase: XCV Description: Bead blank Dimensions: 0.76cm x 0.94cm	Context: 334ne Weight: 0.56g
Special find no: 2519 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.05cm x 0.85cm	Context: 344nw Weight: 2.25g	Special find no: 2592 Stratigraphic phase: XCV Description: Bead blank Dimensions: 3.78cm x 0.85cm	Context: 356nw Weight: 6.54g
Special find no: 1123 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1cm x 0.72cm	Context: 73se Weight: 0.94g	Special find no: 2676 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.25cm x 0.73cm	Context: 73se Weight: 2.63g
Special find no: 8796 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.39cm x 0.92cm	Context: 73sw Weight: 1.52g	Special find no: 8797 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.01cm x 1.13cm	Context: 73sw Weight: 2.41g
Special find no: 6035 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.12cm x 1.08cm	Context: 364ne Weight: 2.24g	Special find no: 6038 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.17cm x 2.22cm	Context: 364ne Weight: 3.48g
Special find no: 6042 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.46cm x 1.73cm	Context: 364ne Weight: 1.31g	Special find no: 8684 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.14cm x 1.28cm	Context: 364ne Weight: 0.92g
Special find no: 2683 Stratigraphic phase: XCII Description: Bead blank Dimensions: 3.5cm x 0.8cm	Context: 365nw Weight: 9.99g	Special find no: 2881 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.4cm x 0.95cm	Context: 365nw Weight: 2.94g
Special find no: 2882 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.52cm x 1.15cm	Context: 365nw Weight: 1.77g	Special find no: 6046 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.71cm x 1.87cm	Context: 365nw Weight: 5.05g
Special find no: 5846 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.77cm x 0.8cm	Context: 365nw Weight: 2.66g	Special find no: 5847 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.49cm x 0.78cm	Context: 365nw Weight: 1.74g
Special find no: 5868 Stratigraphic phase: XCII Description: Bead blank Dimensions: 3.42cm x 1.29cm	Context: 365nw Weight: 9.55g	Special find no: 6009 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.93cm x 1.66cm	Context: 367sw Weight: 11.12g
Special find no: 8669 Stratigraphic phase: XCII Description: Bead blank Dimensions: 1.99cm x 1.43cm	Context: 367sw Weight: 1.84g	Special find no: 2740 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2cm x 0.9cm	Context: 371nw Weight: 3.38g
Special find no: 6008 Stratigraphic phase: XCII Description: 2 bead blanks	Context: 364ne Weight: 3.09g	Special find no: 8674 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.47cm x 0.89cm	Context: 374nw Weight: 1.5g
Special find no: 1702 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 4.5cm x 1.8cm	Context: 304ne Weight: 33.49g	Special find no: 2041 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1cm x 0.5cm	Context: 304ne Weight: 0.47g
Special find no: 2051 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 3.36cm x 1.5cm	Context: 304ne Weight: 12.78g	Special find no: 2052 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.5cm x 1.05cm	Context: 304ne Weight: 5.89g
Special find no: 2054 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.6cm x 0.65cm	Context: 304ne Weight: 1.48g	Special find no: 5183 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.2cm x 0.36cm	Context: 304ne Weight: 1.87g

Stone Objects

Special find no: 8668 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.72cm x 1.26cm	Context: 304sw Weight: 2.08g	Special find no: 8490 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.87cm x 0.66cm	Context: 305sw Weight: 3.22g
Special find no: 8491 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.75cm x 0.48cm	Context: 305sw Weight: 1.04g	Special find no: 8492 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.15cm x 0.76cm	Context: 305sw Weight: 0.29g
Special find no: 6030 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.82cm x 0.78cm	Context: 306sw Weight: 8g	Special find no: 2132 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.6cm x 0.75cm	Context: 307se Weight: 1.5g
Special find no: 1416 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.44cm x 0.52cm	Context: 200sw Weight: 3.33g	Special find no: 2864 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.95cm x 1.1cm	Context: 358se Weight: 9.36g
Special find no: 8672 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.36cm x 1.26cm	Context: 374nw Weight: 1.92g	Special find no: 8682 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.66cm x 2.15cm	Context: 386nw Weight: 7.36g
Special find no: 8681 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.52cm x 1.49cm	Context: 365se Weight: 2.57g	Special find no: 6258 Stratigraphic phase: XCI Description: Bead blank Dimensions: 3.7cm width	Context: 386ne Weight: 90.84g
Special find no: 6325 Stratigraphic phase: XCI Description: Bead blank Dimensions: 3.17cm x 0.75cm	Context: 399se/ne Weight: 4.31g	Special find no: 8675 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.27cm x 1.32cm	Context: 399ne/se Weight: 0.58g
Special find no: 8683 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.79cm x 1.37cm	Context: 399se Weight: 4.63g	Special find no: 8685 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.88cm x 1.15cm	Context: 416ne Weight: 3.07g
Special find no: 8687 Stratigraphic phase: XCI Description: Bead blank Dimensions: 3.25cm x 3.35cm	Context: 416ne Weight: 20.1g	Special find no: 8686 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.88cm x 2.66cm	Context: 417sw Weight: 10.87g
Special find no: 6576 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.54cm x 1.2cm	Context: 422sw Weight: 6.04g	Special find no: 15619 Stratigraphic phase: LXXI Description: Bead blank Dimensions: 1.77cm x 1.48cm	Context: 607se Weight: 2.54g
Special find no: 10062 Stratigraphic phase: LXXI Description: Bead blank Dimensions: 7.03cm x 2.52cm	Context: 607se Weight: 54.47g	Special find no: 15350 Stratigraphic phase: LXXII Description: Bead blank Dimensions: 3.07cm x 3.22cm	Context: 602ne Weight: 20.1g
Special find no: 7204 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 2.45cm x 0.91cm	Context: 490sw Weight: 5.44g	Special find no: 7061 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 0.32cm x 1.98cm	Context: 494ne Weight: 0.57g
Special find no: 7154 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 2.55cm x 0.93cm	Context: 494ne Weight: 4.05g	Special find no: 15279 Stratigraphic phase: LXXXIII Description: Bead blank Dimensions: 1.35cm x 1.94cm	Context: 605ne Weight: 2.5g
Special find no: 10125 Stratigraphic phase: LXXXIII Description: Bead blank Dimensions: 4.31cm x 3.37cm	Context: 632nw Weight: 42.21g	Special find no: 6346 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 0.86cm x 0.44cm	Context: 390se Weight: 0.64g
Special find no: 6174 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 4.5cm x 1.2cm	Context: 376nw Weight: 19.86g	Special find no: 6723 Stratigraphic phase: LXXXVII Description: Bead blank Dimensions: 1.53cm x 1.4cm	Context: 441ne Weight: 2.06g
Special find no: 2861 Stratigraphic phase: LXXXVIII Description: Bead blank Dimensions: 2.35cm x 1.88cm	Context: 375nw Weight: 6.41g	Special find no: 16820 Stratigraphic phase: XXVIII Description: Bead blank Dimensions: 1.14cm x 2.48cm	Context: 977se Weight: 7.85g

Special find no: 10619 Context: 1172se
Stratigraphic phase: XXII Weight: 3.41g
Description: **Bead blank**
Dimensions: 0.97cm x 2.17cm

8.8.1.2 Bead debitage

Special find no: 1056 Context: 41sw
Stratigraphic phase: C Weight: 0.39g
Description: **Bead debitage**
Dimensions: 0.9cm x 0.82cm

Special find no: 1064 Context: 41sw
Stratigraphic phase: C Weight: 0.1g
Description: **Bead debitage**
Dimensions: 0.84cm x 0.48cm

Special find no: 1052 Context: 41sw
Stratigraphic phase: C Weight: 0.29g
Description: **Bead debitage**
Dimensions: 0.8cm x 0.66cm

Special find no: 1386 Context: 59sw
Stratigraphic phase: XCVI Weight: 2.25g
Description: **Bead debitage**
Dimensions: 1.8cm x 0.65cm

Special find no: 1195 Context: 25ne
Stratigraphic phase: XCVII Weight: 0.23g
Description: **Bead debitage**
Dimensions: 0.96cm x 0.3cm

Special find no: 1246 Context: 76ne
Stratigraphic phase: XCV Weight: 0.34g
Description: **Bead debitage**
Dimensions: 1.3cm x 0.54cm

Special find no: 1379 Context: 87nw
Stratigraphic phase: XCV Weight: 1gm
Description: **Bead debitage**
Dimensions: 1.5cm x 0.5cm

Special find no: 1250 Context: 88ne
Stratigraphic phase: XCV Weight: 0.37g
Description: **Bead debitage**
Dimensions: 1.1cm x 0.4cm

Special find no: 1383 Context: 113ne
Stratigraphic phase: XCV Weight: 0.41g
Description: **Bead debitage**
Dimensions: 1.5cm x 0.3cm

Special find no: 1393 Context: 134ne
Stratigraphic phase: XCV Weight: 2.09g
Description: **Bead debitage**
Dimensions: 1.7cm x 0.6cm

Special find no: 1507 Context: 253nw
Stratigraphic phase: XCV Weight: 0.1g
Description: **Bead debitage**
Dimensions: 0.9cm x 0.3cm

Special find no: 1635 Context: 256se
Stratigraphic phase: XCV Weight: 0.09g
Description: **Bead debitage**
Dimensions: 0.55cm x 0.35cm

Special find no: 1579 Context: 265se
Stratigraphic phase: XCV Weight: 0.68g
Description: **Bead debitage**
Dimensions: 1.2cm x 0.46cm

Special find no: 1750 Context: 272se
Stratigraphic phase: XCV Weight: 0.19g
Description: **Bead debitage**
Dimensions: 0.86cm length

Special find no: 1062 Context: 41sw
Stratigraphic phase: C Weight: 0.27g
Description: **Bead debitage**
Dimensions: 1cm x 0.72cm

Special find no: 1270 Context: 41sw
Stratigraphic phase: C Weight: 0.42g
Description: **Bead debitage**
Dimensions: 2cm x 0.2cm

Special find no: 1382 Context: 109nw
Stratigraphic phase: CIII Weight: 1.5g
Description: **Bead debitage**
Dimensions: 1.72cm x 1.14cm

Special find no: 8070 Context: 25ne
Stratigraphic phase: XCVII Weight: 2.41g
Description: **Bead debitage**
Dimensions: 1.83cm x 0.57cm
[Fig. 8.3]

Special find no: 1378 Context: 25nw
Stratigraphic phase: XCVII Weight: 2.98g
Description: **Bead debitage**
Dimensions: 2.25cm x 0.52cm

Special find no: 1402 Context: 108nw
Stratigraphic phase: XCV Weight: 0.14g
Description: **Bead debitage**
Dimensions: 0.91cm x 0.25cm

Special find no: 1396 Context: 87sw
Stratigraphic phase: XCV Weight: 2.44g
Description: **Bead debitage**
Dimensions: 3.9cm x 0.5cm

Special find no: 1399 Context: 107nw
Stratigraphic phase: XCV Weight: 0.62g
Description: **Bead debitage**
Dimensions: 1.3cm x 0.35cm

Special find no: 1394 Context: 126se
Stratigraphic phase: XCV Weight: 0.97g
Description: **Bead debitage**
Dimensions: 1.7cm x 0.6cm

Special find no: 667 Context: 190nw
Stratigraphic phase: XCV Weight: 5.7g
Description: **Bead debitage**
Dimensions: 3.8cm x 0.6cm

Special find no: 1531 Context: 253nw
Stratigraphic phase: XCV Weight: 0.06g
Description: **Bead debitage**
Dimensions: 0.55cm x 0.15cm

Special find no: 1969 Context: 261nw
Stratigraphic phase: XCV Weight: 0.78g
Description: **Bead debitage**
Dimensions: 1.67cm x 0.5cm

Special find no: 1637 Context: 272se
Stratigraphic phase: XCV Weight: 1.8g
Description: **Bead debitage**
Dimensions: 2cm x 0.74cm

Special find no: 1599 Context: 273se
Stratigraphic phase: XCV Weight: 0.9g
Description: **Bead debitage**
Dimensions: 1.15cm x 0.63cm

Stone Objects

Special find no: 6220 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.3cm x 0.4cm	Context: 313sw Weight: 0.53g	Special find no: 1784 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.55cm x 0.6cm	Context: 316ne Weight: 0.91g
Special find no: 1824 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1cm x 0.4cm	Context: 316ne Weight: 0.35g	Special find no: 1853 Stratigraphic phase: XCV Description: 3 chips of bead debitage Dimensions: Chips	Context: 320ne Weight: 1.09g
Special find no: 1785 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.2cm x 0.14cm	Context: 322nw Weight: 0.2g	Special find no: 1863 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.4cm x 0.07cm	Context: 324ne Weight: 1.03g
Special find no: 1851 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.4cm x 0.35cm	Context: 326ne Weight: 0.78g	Special find no: 5777 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.75cm x 0.62cm	Context: 334ne Weight: 1.34g
Special find no: 5778 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.57cm x 0.41cm	Context: 334ne Weight: 0.84g	Special find no: 1939 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.79cm x 0.72cm	Context: 334ne Weight: 1.18g
Special find no: 2535 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.8cm x 0.35cm	Context: 344nw Weight: 0.4g	Special find no: 2505 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.9cm x 1.1cm	Context: 344nw Weight: 2.78g
Special find no: 1763 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.37cm x 2.25cm	Context: 289ne Weight: 5.25g	Special find no: 2817 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 0.73cm x 0.15cm	Context: 373nw Weight: 0.07g
Special find no: 1260 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.5cm x 0.45cm	Context: 600 Weight: 0.62g	Special find no: 15553 Stratigraphic phase: XCV Description: Bead debitage Dimensions: 1.14cm x 0.75cm	Context: 600 Weight: 0.55g
Special find no: 2454 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.2cm x 0.38cm	Context: 364ne Weight: 0.47g	Special find no: 2859 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 2.7cm x 0.45cm	Context: 364ne Weight: 2.84g
Special find no: 2718 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.1cm x 0.5cm	Context: 365nw Weight: 0.49g	Special find no: 5050 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 2.1cm x 0.05cm	Context: 365nw Weight: 2.24g
Special find no: 5051 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 2.1cm x 0.3cm	Context: 365nw Weight: 0.68g	Special find no: 5052 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 3cm x 0.2cm	Context: 365nw Weight: 1.71g
Special find no: 5053 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1cm x 0.55cm	Context: 365nw Weight: 0.51g	Special find no: 5054 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.6cm x 0.5cm	Context: 365nw Weight: 0.2g
Special find no: 6065 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.15cm x 0.38cm	Context: 365nw Weight: 0.58g	Special find no: 5658 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.74cm x 0.53cm	Context: 365nw Weight: 0.35g
Special find no: 5845 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.61cm x 0.6cm	Context: 365nw Weight: 1.9g	Special find no: 8680 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 0.69cm x 0.89cm	Context: 366sw Weight: 0.55g
Special find no: 5758 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.36cm x 0.54cm	Context: 367sw Weight: 0.78g	Special find no: 5759 Stratigraphic phase: XCII Description: Bead debitage Dimensions: 1.27cm x 0.54cm	Context: 367sw Weight: 0.82g
Special find no: 2053 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 2.3cm x 0.43cm	Context: 304ne Weight: 1.3g	Special find no: 2756 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.54cm length	Context: 363ne Weight: 0.13g

Special find no: 2055 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.7cm x 0.28cm	Context: 304ne Weight: 0.06g	Special find no: 2056 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.85cm x 0.17cm	Context: 304ne Weight: 0.08g
Special find no: 5901 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 1.24cm x 0.32cm	Context: 304ne Weight: 0.47g	Special find no: 5902 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 1cm x 0.2cm	Context: 304ne Weight: 0.12g
Special find no: 2107 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 2.2cm x 0.64cm	Context: 306se Weight: 1.44g	Special find no: 2108 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 1.1cm x 0.12cm	Context: 306se Weight: 0.16g
Special find no: 2109 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.8cm x 0.3cm	Context: 306se Weight: 0.15g	Special find no: 2110 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.9cm x 0.25cm	Context: 306se Weight: 0.09g
Special find no: 2111 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.94cm x 0.36cm	Context: 306se Weight: 0.24g	Special find no: 2515 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.9cm x 0.37cm	Context: 306sw Weight: 0.29g
Special find no: 6074 Stratigraphic phase: XCIII Description: Bead debitage Dimensions: 0.84cm x 0.74cm	Context: 345sw Weight: 0.23g	Special find no: 6463 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 2.31cm x 0.53cm	Context: 416ne Weight: 1.75g
Special find no: 5316 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.2cm x 0.31cm	Context: 386g Weight: 0.8g	Special find no: 6252 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.4cm x 0.45cm	Context: 386ne Weight: 0.52g
Special find no: 6278 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.9cm x 0.25cm	Context: 386nw Weight: 1.09g	Special find no: 6286 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.65cm x 0.45cm	Context: 386nw Weight: 1.84g
Special find no: 6300 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.7cm x 0.75cm	Context: 386nw Weight: 1.39g	Special find no: 5824 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 0.9cm x 0.44cm	Context: 400se Weight: 0.38g
Special find no: 6399 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 1.1cm x 0.6cm	Context: 404ne Weight: 0.6g	Special find no: 5332 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 2.1cm x 0.25cm	Context: 415se Weight: 0.56g
Special find no: 6430 Stratigraphic phase: XCI Description: Bead debitage Dimensions: 2.8cm x 0.7cm	Context: 415se Weight: 3.76g	Special find no: 15859 Stratigraphic phase: LXIV Description: Bead debitage Dimensions: 1.07cm x 1.28cm	Context: 697nw Weight: 0.83g
Special find no: 15860 Stratigraphic phase: LXIV Description: Bead debitage Dimensions: 2.16cm x 1.65cm	Context: 697nw Weight: 2.89g	Special find no: 16037 Stratigraphic phase: LXVI Description: Bead debitage Dimensions: 1.37cm x 0.28cm	Context: 663nw Weight: 0.55g
Special find no: 15461 Stratigraphic phase: LXXVIII Description: Bead debitage Dimensions: 1.72cm x 2.68cm	Context: 615nw Weight: 2.11g	Special find no: 15620 Stratigraphic phase: LXXI Description: Bead debitage Dimensions: 1.24cm x 1.05cm	Context: 607se Weight: 0.68g
Special find no: 15377 Stratigraphic phase: LXXII Description: Bead debitage Dimensions: 1.02cm x 0.93cm	Context: 601ne Weight: 0.72g	Special find no: 10155 Stratigraphic phase: LXXIII Description: Bead debitage Dimensions: 2.06cm x 1.23cm	Context: 635nw Weight: 1.26g
Special find no: 8092 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 2.1cm x 0.3cm	Context: 490nw Weight: 0.9g	Special find no: 8083 Stratigraphic phase: LXXV Description: Bead debitage Dimensions: 1.52cm x 0.33cm	Context: 494ne Weight: 0.26g
Special find no: 6807 Stratigraphic phase: LXXXI Description: Bead debitage Dimensions: 1.48cm x 0.43cm	Context: 470nw Weight: 1.02g	Special find no: 6900 Stratigraphic phase: LXXXI Description: Bead debitage Dimensions: 2.14cm x 0.52cm	Context: 487ne Weight: 1.56g

Stone Objects

Special find no: **6929**
Stratigraphic phase: **LXXXI**
Description: **Bead debitage**
Dimensions: **1.54cm x 0.61cm**

Context: **487ne**
Weight: **1.09g**

Special find no: **2887**
Stratigraphic phase: **LXXXVI**
Description: **Bead debitage**
Dimensions: **1.67cm x 0.44cm**

Context: **376nw**
Weight: **1.03g**

Special find no: **10620**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.29cm x 2.44cm**

Context: **1172se**
Weight: **2.47g**

Special find no: **17282**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.64cm x 0.87cm**

Context: **1125ne**
Weight: **0.4g**

Special find no: **10602**
Stratigraphic phase: **XXIV**
Description: **Bead debitage**
Dimensions: **0.45cm x 1.4cm**

Context: **1153nw**
Weight: **0.81g**

Special find no: **16996**
Stratigraphic phase: **XXVIII**
Description: **Bead debitage**
Dimensions: **0.59cm x 1.29cm**

Context: **977ne**
Weight: **0.95g**

Special find no: **10409**
Stratigraphic phase: **XXX**
Description: **Bead debitage**
Dimensions: **1.69cm x 1.17cm**

Context: **961se**
Weight: **2.41g**

Special find no: **10347**
Stratigraphic phase: **XXXI**
Description: **Bead debitage**
Dimensions: **0.54cm x 0.37cm**

Context: **926sw**
Weight: **0.21g**

Special find no: **10395**
Stratigraphic phase: **XXXI**
Description: **Bead debitage**
Dimensions: **2.08cm x 1.37cm**

Context: **1081nw**
Weight: **1.94g**

Special find no: **17370**
Stratigraphic phase: **XVIII**
Description: **Bead debitage**
Dimensions: **0.48cm x 2.02cm**

Context: **1175se**
Weight: **1.48g**

Special find no: **2624**
Stratigraphic phase:
Description: **Bead debitage**
Dimensions: **0.8cm x 0.2cm**

Context: **Unstratified**
Weight: **0.12g**

Special find no: **8017**
Stratigraphic phase: **LXXXI**
Description: **Bead debitage**
Dimensions: **0.33cm x 1.62cm**

Context: **487ne**
Weight: **0.56g**

Special find no: **17413**
Stratigraphic phase: **XVI**
Description: **Bead debitage**
Dimensions: **0.47cm x 1.42cm**

Context: **1293ne**
Weight: **0.7g**

Special find no: **17287**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.28cm x 1.08cm**

Context: **1172se**
Weight: **0.29g**

Special find no: **17284**
Stratigraphic phase: **XXII**
Description: **Bead debitage**
Dimensions: **0.63cm x 2.6cm**

Context: **1125se**
Weight: **3.62g**

Special find no: **17289**
Stratigraphic phase: **XXVI**
Description: **Bead debitage**
Dimensions: **0.26cm x 1.84cm**

Context: **1101nw**
Weight: **0.85g**

Special find no: **10433**
Stratigraphic phase: **XXX**
Description: **Bead debitage**
Dimensions: **1.64cm x 0.42cm**

Context: **961se**
Weight: **0.55g**

Special find no: **10387**
Stratigraphic phase: **XXXI**
Description: **Bead debitage**
Dimensions: **2.24cm x 2.08cm**

Context: **974se**
Weight: **7.36g**

Special find no: **10381**
Stratigraphic phase: **XXXI**
Description: **Bead debitage**
Dimensions: **1.77cm x 0.45cm**

Context: **973sw**
Weight: **1.34g**

Special find no: **10303**
Stratigraphic phase: **XXXIX**
Description: **Bead debitage**
Dimensions: **1.89cm x 0.45cm**

Context: **831ne**
Weight: **1.04g**

Special find no: **10613**
Stratigraphic phase: **XVIII**
Description: **Bead debitage**
Dimensions: **1.08cm x 0.93cm**

Context: **1175sw**
Weight: **0.55g**

8.8.1.3 Intaglio or ring blank

Special find no: **792**
Stratigraphic phase: **XCV**
Description: **Intaglio or ring blank**
Dimensions: **4cm x 0.3cm**
[Plate 8.4; Fig. 8.2]

Context: **87sw**
Weight: **0.95g**

Special find no: **1249**
Stratigraphic phase: **XCV**
Description: **Intaglio blank**
Dimensions: **1.4cm x 0.36cm**

Context: **88ne**
Weight: **0.9g**

8.8.1.4 Ring blank

Special find no: **2149**
Stratigraphic phase: **XCV**
Description: **Ring blank**
Dimensions: **2.1 cm**
[Plate 8.5; Fig. 8.2]

Context: **301ne**
Weight: **1.85g**

8.8.1.5 Spherical disc

Special find no: **2507**
Stratigraphic phase: **XCV**

Context: **344nw**
Weight: **0.07g**

Description: **Spherical disc**
Dimensions: **0.33cm x 0.4cm**

8.8.1.6 Disc

Special find no: **15555** Context: **600**
Stratigraphic phase: **XCV** Weight: **0.16g**
Description: **Disc**
Dimensions: **0.71cm x 0.56cm**

8.8.1.7 Oval bead

Special find no: **1565** Context: **262se**
Stratigraphic phase: **XCV** Weight: **2.07g**
Description: **Oval bead, partially drilled**
Dimensions: **1.57cm x 1cm**
[Plate 8.5; Figs 8.2 and 8.3]

Special find no: **7045** Context: **429se**
Stratigraphic phase: **XCV** Weight: **0.72g**
Description: **Oval bead**
Dimensions: **0.74cm x 0.63cm**

Special find no: **2502** Context: **306sw**
Stratigraphic phase: **XCIII** Weight: **4.42g**
Description: **Oval bead**
Dimensions: **1.84cm x 1.37cm**
[Fig. 8.2]

8.8.1.8 Bangle

Special find no: **1613** Context: **271se**
Stratigraphic phase: **XCV** Weight: **1.5g**
Description: **Bangle**
Dimensions: **0.4cm length**

8.8.1.9 Stupa base

Special find no: **1609** Context: **271se**
Stratigraphic phase: **XCV** Weight: **3.5g**
Description: **Stupa base?**
Dimensions: **2.2cm x 2.3cm**
[Plate 8.6; Fig. 8.2]

8.8.1.10 Quartz crystal

Special find no: **10523** Context: **364ne**
Stratigraphic phase: **XCII** Weight: **5.85g**
Description: **Quartz nodule**
Dimensions: **2.1cm x 1.34cm**
[Plate 8.6; Fig. 8.3]

8.8.1.11 Shaped bead or ring blanks

Special find no: **15545** Context: **600**
Stratigraphic phase: **XCV** Weight: **3.17g**
Description: **Shaped blank**
Dimensions: **1.32cm x 1.29cm**

Special find no: **2933** Context: **304ne**
Stratigraphic phase: **XCIII** Weight: **28.1g**
Description: **Shaped blank**
Dimensions: **4.25cm x 1.25cm**

Special find no: **5284** Context: **376nw**
Stratigraphic phase: **LXXXVI** Weight: **3.73g**
Description: **Shaped blank**
Dimensions: **1.25cm x 1.26cm**
[Plate 8.7; Fig. 8.2]

8.8.1.12 Undiagnostic

Special find no: **6058** Context: **306sw**
Stratigraphic phase: **XCIII** Weight: **64.24g**
Description: **Undiagnostic**
Dimensions: **7.32cm x 2.45cm**

8.8.1.13 Oval spacer

Special find no: **6136** Context: **383ne**
 Stratigraphic phase: **LXXXIX** Weight: **1.37g**
 Description: **Oval spacer**
 Dimensions: **2.27cm x 0.55cm**

8.8.1.14 Rings

Special find no: **6519** Context: **409nw**
 Stratigraphic phase: **LXXXVIII** Weight: **1.25g**
 Description: **Ring**
 Dimensions: **3cm x 0.45cm**
 [Fig. 8.2]

Special find no: **8118** Context: **494ne**
 Stratigraphic phase: **LXXV** Weight: **1.35g**
 Description: **Ring**
 Dimensions: **2cm x 0.39cm**

Special find no: **16158** Context: **707ne**
 Stratigraphic phase: **LIV** Weight: **0.35g**
 Description: **Ring**
 Dimensions: **0.38cm x 0.29cm**

8.8.1.15 Squashed sphere

Special find no: **8120** Context: **490rw**
 Stratigraphic phase: **LXXV** Weight: **0.78g**
 Description: **Squashed sphere**
 Dimensions: **1.01cm x 0.56cm**

8.8.1.16 Hexagonal and tube bead

Special find no: **8211** Context: **511ne**
 Stratigraphic phase: **LXXVI** Weight: **0.65g**
 Description: **Hexagonal and tube bead**
 Dimensions: **0.93cm x 0.51cm**

Special find no: **16998** Context: **977se**
 Stratigraphic phase: **XXVIII** Weight: **3.14g**
 Description: **Hexagonal and tube bead**
 Dimensions: **3.12cm x 0.68cm**

Special find no: **10653** Context: **1292se**
 Stratigraphic phase: **XIX** Weight: **1.53g**
 Description: **Hexagonal and tube bead**
 Dimensions: **1.6cm x 0.7cm**

8.8.1.17 Faceted pendant

Special find no: **6682** Context: **416ne**
 Stratigraphic phase: **XCI** Weight: **1.3g**
 Description: **Faceted pendant**
 Dimensions: **1.7cm x 0.9cm**
 [Plate 1.4]

8.8.2 Smoky quartz

A total of 83 smoky quartz objects have been found ranging from period J to B, thus dating from c. 510 cal. BC to AD 1100. The highest frequency is in period F with 26 objects, which also has the widest variety of

objects incorporating blank, spherical disc, sphere, shaped blank and oval beads, jewellery insert, natural pebbles and debitage. This demonstrates that bead production activity was prominent during this period.

8.8.2.1 Bead blanks

Special find no: **1574** Context: **262se**
 Stratigraphic phase: **XCV** Weight: **10.03g**
 Description: **Bead blank**
 Dimensions: **3.3cm x 1cm**

Special find no: **2285** Context: **316ne**
 Stratigraphic phase: **XCV** Weight: **14.15g**
 Description: **Bead blank**
 Dimensions: **3.75cm x 1.4cm**

Special find no: **2365** Context: **300se**
 Stratigraphic phase: **XCV** Weight: **155.75g**
 Description: **Bead blank**
 Dimensions: **9cm x 2.8cm**

Special find no: **1691** Context: **301ne**
 Stratigraphic phase: **XCV** Weight: **6.13g**
 Description: **Bead blank**
 Dimensions: **2.25cm x 1.35cm**

Special find no: **1778** Context: **301ne**
 Stratigraphic phase: **XCV** Weight: **0.94g**
 Description: **Bead blank**
 Dimensions: **1.2cm x 0.68cm**

Special find no: **1692** Context: **303ne**
 Stratigraphic phase: **XCV** Weight: **0.88g**
 Description: **Bead blank**
 Dimensions: **0.8cm x 0.7cm**

Special find no: 2442 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.85cm x 0.85cm	Context: 320ne Weight: 2.14g	Special find no: 8069 Stratigraphic phase: XCV Description: Bead blank Dimensions: 3.74cm x 2.77cm	Context: 324ne Weight: 30.93g
Special find no: 6333 Stratigraphic phase: XCV Description: Bead blank Dimensions: 2.31cm x 0.89cm	Context: 394sw Weight: 3.16g	Special find no: 6352 Stratigraphic phase: XCV Description: Bead blank Dimensions: 3.47cm x 2.68cm	Context: 401sw Weight: 23.3g
Special find no: 6327 Stratigraphic phase: XCV Description: Bead blank Dimensions: 4.2cm x 1.5cm	Context: 600 Weight: 19.59g	Special find no: 5329 Stratigraphic phase: XCV Description: Bead blank Dimensions: 1.76cm x 0.56cm	Context: 600 Weight: 2.25g
Special find no: 2883 Stratigraphic phase: XCII Description: Bead blank Dimensions: 2.15cm x 1cm	Context: 365nw Weight: 3.51g	Special find no: 2356 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.5cm x 1.1cm	Context: 73se Weight: 6.37g
Special find no: 2103 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.1cm x 0.73cm	Context: 306se Weight: 1.13g	Special find no: 2757 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 3.64cm length	Context: 363ne Weight: 20.56g
Special find no: 2042 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 0.5cm x 0.45cm	Context: 304ne Weight: 0.15g	Special find no: 2046 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.4cm x 0.7cm	Context: 304ne Weight: 1.56g
Special find no: 2047 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.3cm x 0.6cm	Context: 304ne Weight: 0.94g	Special find no: 2048 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1cm x 0.4cm	Context: 304ne Weight: 0.54g
Special find no: 2049 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1cm x 0.6cm	Context: 304ne Weight: 0.54g	Special find no: 2050 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 1.16cm x 0.5cm	Context: 304ne Weight: 0.38g
Special find no: 6101 Stratigraphic phase: XCIII Description: Bead blank Dimensions: 2.88cm x 0.41cm	Context: 378se Weight: 3.68g	Special find no: 6276 Stratigraphic phase: XCI Description: Bead blank Dimensions: 5cm x 2cm	Context: 386nw Weight: 27.98g
Special find no: 6348 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.01cm x 0.85cm	Context: 403nw Weight: 5.07g	Special find no: 5330 Stratigraphic phase: XCI Description: Bead blank Dimensions: 1.84cm x 0.65cm	Context: 403nw Weight: 1.33g
Special find no: 5754 Stratigraphic phase: XCI Description: Bead blank Dimensions: 2.34cm x 0.68cm	Context: 416ne Weight: 4.34g	Special find no: 8202 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 3.86cm x 0.7cm	Context: 490sw Weight: 7.87g
Special find no: 8205 Stratigraphic phase: LXXV Description: Bead blank Dimensions: 1.84cm x 1.58cm	Context: 490sw Weight: 6.19g	Special find no: 6779 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 2.36cm x 1.25cm	Context: 457sw Weight: 5.57g
Special find no: 5258 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 2.01cm x 1.05cm	Context: 376se Weight: 5.4g	Special find no: 6211 Stratigraphic phase: LXXXVI Description: Bead blank Dimensions: 0.86cm x 1.04cm	Context: 376nw Weight: 2.97g
Special find no: 6736 Stratigraphic phase: LXXXVII Description: Bead blank Dimensions: 2.47cm x 1.09cm	Context: 442se Weight: 9.97g	Special find no: 16041 Stratigraphic phase: LX Description: Bead blank Dimensions: 1.84cm x 1.46cm	Context: 767se Weight: 4.66g
Special find no: 10434 Stratigraphic phase: XXX Description: Bead blank Dimensions: 3.83cm x 1.78cm	Context: 961sw Weight: 17.56g	Special find no: 1712 Stratigraphic phase: Description: Bead blank Dimensions: 7cm x 2.7cm	Context: Unstratified Weight: 89.79g

8.8.2.2 *Bead debitage*

Special find no: 5709
Stratigraphic phase: XCV
Description: **Bead debitage**
Dimensions: 1cm x 0.36cm

Context: 356nw
Weight: 0.39g

Special find no: 5838
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 1.12cm x 0.57cm

Context: 358se
Weight: 0.09g

Special find no: 1706
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 1.3cm x 0.5cm

Context: 304ne
Weight: 0.68g

Special find no: 2105
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 0.5cm x 0.33cm

Context: 306se
Weight: 0.09g

Special find no: 15325
Stratigraphic phase: LXXII
Description: **Bead debitage**
Dimensions: 3.47cm x 2.38cm

Context: 601ne
Weight: 7.55g

Special find no: 1938
Stratigraphic phase: LXXXVII
Description: **Bead debitage**
Dimensions: 1.23cm x 0.85cm

Context: 340se
Weight: 1.06g

Special find no: 10288
Stratigraphic phase: LX
Description: **Bead debitage**
Dimensions: 2.75cm x 0.78cm

Context: 767ne
Weight: 3.71g

Special find no: 17511
Stratigraphic phase: XXIII
Description: **Bead debitage**
Dimensions: 0.49cm x 1.95cm

Context: 1125se
Weight: 1.99g

Special find no: 17348
Stratigraphic phase: XVIII
Description: **Bead debitage**
Dimensions: 1.02cm x 2.24cm

Context: 1175se
Weight: 3.35g

Special find no: 17285
Stratigraphic phase: XIX
Description: **Bead debitage**
Dimensions: 0.79cm x 1.69cm

Context: 1292se
Weight: 1.8g

Special find no: 17496
Stratigraphic phase: XIV
Description: **Bead debitage**
Dimensions: 1.05cm x 2.2cm

Context: 1407sw
Weight: 4.79g

Special find no: 5661
Stratigraphic phase: XCII
Description: **Bead debitage**
Dimensions: 0.78cm x 0.41cm

Context: 365nw
Weight: 0.28g

Special find no: 3546
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 0.96cm x 0.38cm

Context: 370se
Weight: 0.23g

Special find no: 2104
Stratigraphic phase: XCIII
Description: **Bead debitage**
Dimensions: 1.26cm x 0.4cm

Context: 306se
Weight: 0.52g

Special find no: 6449
Stratigraphic phase: XCI
Description: **Bead debitage**
Dimensions: 2.04cm x 0.48cm

Context: 414sw
Weight: 0.98g

Special find no: 6975
Stratigraphic phase: LXXXI
Description: **Bead debitage**
Dimensions: 0.25cm x 0.55cm

Context: 470sw
Weight: 2.56g

Special find no: 6738
Stratigraphic phase: LXXXVII
Description: **Bead debitage**
Dimensions: 0.81cm x 0.35cm

Context: 442se
Weight: 0.21g

Special find no: 17510
Stratigraphic phase: XXIII
Description: **Bead debitage**
Dimensions: 0.45cm x 2.34cm

Context: 1125se
Weight: 2.44g

Special find no: 17302
Stratigraphic phase: XXIV
Description: **Bead debitage**
Dimensions: 0.75cm x 2.2cm

Context: 1153nw
Weight: 2.6g

Special find no: 17288
Stratigraphic phase: XIX
Description: **Bead debitage**
Dimensions: 0.63cm x 1.49cm

Context: 1216sw
Weight: 1.15g

Special find no: 17286
Stratigraphic phase: XIX
Description: **Bead debitage**
Dimensions: 0.2cm x 1.1cm

Context: 1292se
Weight: 0.09g

8.8.2.3 *Spherical disc*

Special find no: 2789
Stratigraphic phase: XCV
Description: **Spherical disc**
Dimensions: 0.24cm x 0.57cm

Context: 296ne
Weight: 0.11g

Special find no: 2798
Stratigraphic phase: XCIII
Description: **Spherical disc**
Dimensions: 0.36cm x 0.52cm
[Fig. 8.2]

Context: 369se
Weight: 0.11g

8.8.2.4 *Sphere*

Special find no: 2951
Stratigraphic phase: XCIII
Description: **Sphere**
Dimensions: 1.6cm x 1.75cm

Context: 304ne
Weight: 7.21g

8.8.2.5 Shaped bead and ring blanks

Special find no: 2799 Context: 373ne
Stratigraphic phase: XCV Weight: 3.3g
Description: **Shaped bead blank**
Dimensions: 1.32cm length
[Fig. 8.2]

Special find no: 5025 Context: 304nw
Stratigraphic phase: XCIII Weight: 11.15g
Description: **Shaped ring blank**
Dimensions: 2.8cm x 1.85cm
[Fig. 8.2]

Special find no: 8128 Context: 467nw
Stratigraphic phase: LXXXI Weight: 0.48g
Description: **Shaped bead blank**
Dimensions: 0.88cm x 0.41cm
[Fig. 8.2]

Special find no: 7199 Context: 493sw
Stratigraphic phase: LXXV Weight: 2.35g
Description: **Shaped bead blank**
Dimensions: 1.94cm x 0.9cm

8.8.2.6 Oval bead

Special find no: 2934 Context: 304ne
Stratigraphic phase: XCIII Weight: 3.26g
Description: **Oval bead**
Dimensions: 1.85cm x 1.25cm

8.8.2.7 Jewellery insert

Special find no: 2106 Context: 306se
Stratigraphic phase: XCIII Weight: 0.29g
Description: **Jewellery insert**
Dimensions: 0.7cm x 0.46cm

8.8.2.8 Collared barrel

Special find no: 6361 Context: 406sw
Stratigraphic phase: XCI Weight: 0.97g
Description: **Collared barrel**
Dimensions: 1.62cm x 0.68cm

8.8.2.9 Hexagonal and tube bead

Special find no: 16291 Context: 811ne
Stratigraphic phase: XLIV Weight: 3.04g
Description: **Hexagonal and tube bead**
Dimensions: 2.87cm x 0.79cm
[Fig. 8.2]

8.8.2.10 Natural pebbles

Special find no: 8068 Context: 9ne
Stratigraphic phase: CVI Weight: 15g
Description: 1 natural pebble

Special find no: 8061 Context: 4ne
Stratigraphic phase: CXIV Weight: 130g
Description: 6 natural pebbles

Special find no: 8066 Context: 25ne
Stratigraphic phase: XCVII Weight: 45g
Description: 3 natural pebbles

Special find no: 8060 Context: 292ne
Stratigraphic phase: XCV Weight: 10g
Description: 1 natural pebble

Special find no: 8054 Context: 320ne
Stratigraphic phase: XCV Weight: 185g
Description: 3 pieces of natural pebble

Special find no: 8055 Context: 316ne
Stratigraphic phase: XCV Weight: 60g
Description: 5 pieces of natural pebble

Special find no: 8056 Context: 368nw
Stratigraphic phase: XCV Weight: 10g
Description: 1 natural pebble

Special find no: 8058 Context: 313sw
Stratigraphic phase: XCV Weight: 15g
Description: 1 natural pebble

Special find no: 8062 Context: 256se
Stratigraphic phase: XCV Weight: 0.88g
Description: 1 natural pebble

Special find no: 8063 Context: 320
Stratigraphic phase: XCV Weight: 2.14g
Description: 1 natural pebble

Special find no: 8064 Context: 301ne
Stratigraphic phase: XCV Weight: 15g
Description: 1 natural pebble

Special find no: 8065 Context: 367sw
Stratigraphic phase: XCII Weight: 10g
Description: 1 natural pebble

Special find no: 8067 Context: 367sw
Stratigraphic phase: XCII Weight: 10g
Description: 1 natural pebble

Special find no: 8057 Context: 304ne
Stratigraphic phase: XCIII Weight: 10g
Description: 1 natural pebble

Special find no: **8059** Context: **307**
Stratigraphic phase: **XCIII** Weight: **10g**
Description: **1 natural pebble**

8.9 Crystalline limestone

Limestone is a sedimentary rock consisting of carbonates, particularly calcite and dolomite (Whitten and Brooks 1972: 267). While sedimentary limestone occurs naturally in Sri Lanka, especially on the Jaffna Peninsula and the northwest coast (Cooray 1984: 230), crystalline limestones are frequently found within

Precambrian outcrops close to Anuradhapura. Limestone beads have been found at Taxila in Pakistan and a limestone object has been discovered at Satanikota in Andhra Pradesh (Lahiri 1992: 274, 354). Trench ASW2 has yielded eleven pieces of limestone.

8.9.1 Bead blanks

Special find no: **5993** Context: **283ne**
Stratigraphic phase: **XCV** Weight: **0.28g**
Description: **Bead blank**
Dimensions: **0.5cm x 0.77cm**

Special find no: **8001** Context: **358se**
Stratigraphic phase: **XCIII** Weight: **0.29g**
Description: **Bead blank**
Dimensions: **0.62cm x 0.76cm**

Special find no: **8667** Context: **304sw**
Stratigraphic phase: **XCIII** Weight: **4.92g**
Description: **Bead blank**
Dimensions: **1.52cm x 1.03cm**

Special find no: **5991** Context: **369se**
Stratigraphic phase: **XCIII** Weight: **0.67g**
Description: **Bead blank**
Dimensions: **0.73cm x 1.16cm**

8.9.2 Shaped blank

Special find no: **5999** Context: **358se**
Stratigraphic phase: **XCIII** Weight: **0.4g**
Description: **Shaped blank**
Dimensions: **0.58cm x 0.62cm**

8.9.3 Collared sphere

Special find no: **2228** Context: **370sw**
Stratigraphic phase: **XCIII** Weight: **1.3g**
Description: **Collared sphere bead**
Dimensions: **1.2cm x 1.35cm**

Special find no: **2232** Context: **370sw**
Stratigraphic phase: **XCIII** Weight: **1.52g**
Description: **Collared sphere bead**
Dimensions: **1cm x 1.27cm**

Special find no: **2231** Context: **370sw**
Stratigraphic phase: **XCIII** Weight: **1.74g**
Description: **Collared sphere bead**
Dimensions: **1.53cm x 1.4cm**

8.9.4 Squashed collar bead

Special find no: **6369** Context: **399se**
Stratigraphic phase: **XCI** Weight: **0.65g**
Description: **Squashed collar bead**
Dimensions: **0.89cm x 0.5cm**

8.9.5 Squashed sphere bead

Special find no: **6485** Context: **414sw**
Stratigraphic phase: **XCI** Weight: **1.41g**
Description: **Squashed sphere bead**
Dimensions: **1.15cm x 0.7cm**

8.9.6 Unidentified fragment

Special find no: **900** Context: **100ne**
Stratigraphic phase: **XCV** Weight: **1gm**
Description: **1 piece of Marble**
Dimensions: **1cm x 1cm**

8.10 Soapstone

Soapstone is a form of talc rock and occurs in low or medium-grade metamorphosed basic or ultrabasic rocks (Whitten and Brooks 1972: 440). Soapstone is found in

Andhra Pradesh and Tamil Nadu (Lahiri 1992: 189, 366). Five pieces of soapstone have been found from period G, which dates from c. 200 BC to AD 130.

Special find no: 6532 Context: 417nw
Stratigraphic phase: XCI Weight: 23.22g
Description: 1 piece of soapstone

Special find no: 8656 Context: 469se
Stratigraphic phase: LXXXI Weight: 68.36g
Description: 1 piece of soapstone

Special find no: 6198 Context: 376nw
Stratigraphic phase: LXXXVI Weight: 40.09g
Description: 1 piece of soapstone

Special find no: 7161 Context: 495sw
Stratigraphic phase: LXXX Weight: 78.1g
Description: 6 pieces of soapstone

Special find no: 6405 Context: 390se
Stratigraphic phase: LXXXVI Weight: 57.67g
Description: 1 piece of soapstone

8.11 Coral

Corals are marine organisms associated with reef building (Whitten and Brooks 1972: 381). Coral reefs are present off the coast of Sri Lanka at Colombo, Mount Lavinia and Hikkaduwa (Cooray 1984: 163). Coral debris is also present inland, washed up by storm waves,

such as at Foul Point, Trincomalee (ibid.: 164). Seven pieces of coral have been recovered from periods D to G, a date range of c. 200 BC to AD 1100, with the majority occurring in period G. Finds of coral are usually associated with lime-making (ibid.: 230).

Special find no: 8466 Context: 324ne
Stratigraphic phase: XCV Weight: 61g
Description: 1 piece of coral

Special find no: 8434 Context: 492se
Stratigraphic phase: LXXV Weight: 7.58g
Description: 1 piece of coral

Special find no: 6947 Context: 487ne
Stratigraphic phase: LXXXI Weight: 20.06g
Description: 1 piece of coral

Special find no: 5939 Context: 399ne
Stratigraphic phase: XCI Weight: 72.97g
Description: 2 pieces of coral

Special find no: 2059 Context: 304ne
Stratigraphic phase: XCIII Weight: 30.18g
Description: 1 piece of coral

Special find no: 8479 Context: 494ne
Stratigraphic phase: LXXV Weight: 2.16g
Description: 4 pieces of coral

Special find no: 6927 Context: 487ne
Stratigraphic phase: LXXXI Weight: 15.6g
Description: 1 piece of coral

8.12 Quartzite

This rock is metamorphosed sandstone, whereby the grains recrystallize into an interlocked mosaic texture (Whitten and Brooks 1972: 375). They are the result of thermal metamorphism, although some can be regionally metamorphosed. They tend to be coarse or medium grained with a whitish, yet glassy appearance, allowing for easy recognition. The Highland series contains quartzites, especially around Nuwara Eliya (south), Rangala (central) and Trincomalee (northeast) (Cooray 1984). This indicates that the quartzites found at

Anuradhapura were exploited from the local geology and probably were not imported from elsewhere. A quartzite ball has been found at Veerapuram in Andhra Pradesh (Lahiri 1992: 355) and a quartzite rubber has been discovered at Hallur, also in Andhra Pradesh. Trench ASW2 yielded a total of 24 beads, 1 bangle and 1 ring. All the beads except one are from period F, as is the bangle, whereas the ring is from period G. This dominance in period F allows for a date range from c. AD 200 to 600.

8.12.1 Bead fragments

Special find no: 3246 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.64g
Description: Bead fragment
Dimensions: Fragment

Special find no: 2234 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.46g
Description: Bead fragment
Dimensions: Fragment

Special find no: 2236 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.29g
Description: Bead fragment
Dimensions: Fragment

Special find no: 2233 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.71g
Description: Bead fragment
Dimensions: Fragment

Special find no: 2235 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.57g
Description: Bead fragment
Dimensions: Fragment

Special find no: 2237 Context: 370sw
Stratigraphic phase: XCIII Weight: 0.26g
Description: Bead fragment
Dimensions: Fragment

Special find no: **5010**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **304ne**
Weight: **0.53g**

Special find no: **5249**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **0.79g**

Special find no: **3156**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **1.09g**

Special find no: **3262**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **0.63g**

Special find no: **5247**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **0.23g**

Special find no: **3155**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **0.86g**

Special find no: **3168**
Stratigraphic phase: **XCIII**
Description: **Bead fragment**
Dimensions: **Fragment**

Context: **370sw**
Weight: **2.34g**

8.12.2 Lugged sphere bead

Special find no: **2216**
Stratigraphic phase: **XCV**
Description: **Lugged sphere bead**
Dimensions: **1.47cm x 1.08cm**
[Fig. 8.2]

Context: **322nw**
Weight: **0.58g**

Special find no: **2230**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **1.5cm x 0.65cm**

Context: **370sw**
Weight: **0.71g**

Special find no: **2926**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **0.97cm x 1cm**

Context: **304ne**
Weight: **0.6g**

Special find no: **5244**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **1.22cm x 1.33cm**

Context: **370sw**
Weight: **1.16g**

Special find no: **5246**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **2.04cm x 1.5cm**

Context: **370sw**
Weight: **2.48g**

Special find no: **2229**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **1.2cm x 1.35cm**

Context: **370sw**
Weight: **0.85g**

Special find no: **5038**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **0.9cm x 1.15cm**

Context: **304ne**
Weight: **0.89g**

Special find no: **2943**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **0.85cm x 1.15cm**
[Fig. 8.2]

Context: **304ne**
Weight: **1gm**

Special find no: **5245**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **1.49cm x 1.07cm**

Context: **370sw**
Weight: **0.76g**

Special find no: **2232**
Stratigraphic phase: **XCIII**
Description: **Lugged sphere bead**
Dimensions: **1cm x 1.27cm**

Context: **370sw**
Weight: **0.43g**

8.12.3 Disc

Special find no: **2658**
Stratigraphic phase: **XCIII**
Description: **Disc**
Dimensions: **0.45cm x 0.64cm**

Context: **345sw**
Weight: **0.1g**

8.12.4 Bangle

Special find no: **1569**
Stratigraphic phase: **XCIII**
Description: **Bangle**
Dimensions: **0.9cm x-sect, 10cm diameter**

Context: **73sw**
Weight: **8.51g**

8.12.5 Ring

Special find no: **10173**
Stratigraphic phase: **LXVII**
Description: **Ring fragment**
Dimensions: **0.32cm x 0.26cm**

Context: **675ne**
Weight: **0.6g**

8.13 Mica

Mica is an abundant mineral occurring predominantly in igneous and metamorphic rocks (Whitten and Brooks 1972: 290). The most common varieties are muscovite, a golden, transparent mineral, which is heat-resistant, and biotite, a black variety. Sri Lanka is rich in mica resources in both the northern and southern regions

(Cooray 1984: 228). Mica is not found at Anuradhapura, although rocks containing mica are present in the vicinity. The nearest modern-day sources are at Kebitigollewa, which is situated about 20 miles northeast of Anuradhapura, and at Kandy.

8.13.1 Muscovite

A total of 73 pieces of muscovite mica have been found from period G to B (c. 200 cal. BC–AD 1100), with the majority in period D (33), followed by 17 in period B.

Period G contains 8 and period F has 14 pieces, indicating a gradual increase.

Special find no: 492 Stratigraphic phase: C Description: 1 piece	Context: 24ne Weight: 1.46g	Special find no: 493 Stratigraphic phase: C Description: 1 piece	Context: 24nw Weight: 0.67g
Special find no: 126 Stratigraphic phase: C Description: 1 piece	Context: 27sw Weight: 3.67g	Special find no: 953 Stratigraphic phase: C Description: 1 piece	Context: 41se Weight: 0.35g
Special find no: 1283 Stratigraphic phase: C Description: 1 piece	Context: 41se Weight: 0.29g	Special find no: 1300 Stratigraphic phase: C Description: 3 pieces	Context: 41sw Weight: 0.13g
Special find no: 85 Stratigraphic phase: C Description: 1 piece	Context: 27se Weight: 0.07g	Special find no: 1357 Stratigraphic phase: C Description: 2 pieces	Context: 41sw Weight: 0.03g
Special find no: 1281 Stratigraphic phase: C Description: 2 pieces	Context: 24ne Weight: 9.84g	Special find no: 40 Stratigraphic phase: CII Description: 1 piece	Context: 14nw Weight: 0.16g
Special find no: 950 Stratigraphic phase: CIV Description: 1 piece	Context: 26ne Weight: 0.56g	Special find no: 952 Stratigraphic phase: CVI Description: 1 piece	Context: 9se Weight: 0.27g
Special find no: 15 Stratigraphic phase: CVI Description: 1 piece	Context: 9ne Weight: 0.17g	Special find no: 487 Stratigraphic phase: CX Description: 1 piece	Context: 19se Weight: 0.07g
Special find no: 1328 Stratigraphic phase: CXIII Description: 1 piece	Context: 71sw Weight: 0.16g	Special find no: 489 Stratigraphic phase: XCVII Description: 1 piece	Context: 25ne Weight: 0.29g
Special find no: 491 Stratigraphic phase: XCVIII Description: 1 piece	Context: 48ne Weight: 0.5g	Special find no: 625 Stratigraphic phase: XCV Description: 1 piece	Context: 56sw Weight: 0.19g
Special find no: 419 Stratigraphic phase: XCV Description: 1 piece	Context: 76ne Weight: 2.9g	Special find no: 1476 Stratigraphic phase: XCV Description: 10 pieces	Context: 78se Weight: 0.85g
Special find no: 310 Stratigraphic phase: XCV Description: 1 piece	Context: 100ne Weight: 0.14g	Special find no: 413 Stratigraphic phase: XCV Description: 1 piece	Context: 133ne Weight: 0.4g
Special find no: 460 Stratigraphic phase: XCV Description: 1 piece	Context: 134ne Weight: 1.28g	Special find no: 471 Stratigraphic phase: XCV Description: 1 piece	Context: 134ne Weight: 0.3g
Special find no: 675 Stratigraphic phase: XCV Description: 1 piece	Context: 195ne Weight: 0.32g	Special find no: 1513 Stratigraphic phase: XCV Description: 1 piece	Context: 253nw Weight: 0.12g
Special find no: 1518 Stratigraphic phase: XCV Description: 1 piece	Context: 253nw Weight: 0.06g	Special find no: 1520 Stratigraphic phase: XCV Description: 1 piece	Context: 253nw Weight: 0.46g
Special find no: 1652 Stratigraphic phase: XCV Description: 1 piece	Context: 256se Weight: 0.01g	Special find no: 1677 Stratigraphic phase: XCV Description: 2 pieces	Context: 256se Weight: 0.02g
Special find no: 1686 Stratigraphic phase: XCV Description: 1 piece	Context: 256se Weight: 0.67g	Special find no: 1694 Stratigraphic phase: XCV Description: 3 pieces	Context: 256se Weight: 0.98g

Stone Objects

Special find no: 1560 Stratigraphic phase: XCV Description: 1 piece	Context: 262se Weight: 0.29g	Special find no: 1563 Stratigraphic phase: XCV Description: 2 pieces	Context: 262se Weight: 0.03g
Special find no: 1596 Stratigraphic phase: XCV Description: 1 piece	Context: 273se Weight: 0.18g	Special find no: 2626 Stratigraphic phase: XCV Description: 1 piece	Context: 292ne Weight: 0.76g
Special find no: Stratigraphic phase: XCV Description: 1 piece	Context: 296ne Weight: 0.43g	Special find no: Stratigraphic phase: XCV Description: 6 pieces	Context: 301ne Weight: 4.32g
Special find no: Stratigraphic phase: XCV Description: 1 piece	Context: 322nw Weight: 0.96g	Special find no: Stratigraphic phase: XCV Description: 5 pieces	Context: 324ne Weight: 5.21g
Special find no: Stratigraphic phase: XCV Description: 17 pieces	Context: 324ne Weight: 8.65g	Special find no: Stratigraphic phase: XCV Description: 3 pieces	Context: 325ne Weight: 2.23g
Special find no: Stratigraphic phase: XCV Description: 2 pieces	Context: 334ne Weight: 1.87g	Special find no: Stratigraphic phase: XCV Description: 2 pieces	Context: 344nw Weight: 1.47g
Special find no: Stratigraphic phase: XCV Description: 1 piece	Context: 368nw Weight: 0.38g	Special find no: Stratigraphic phase: XCV Description: 2 pieces	Context: 373 Weight: 1.33g
Special find no: 1675 Stratigraphic phase: XCV Description: 2 pieces	Context: 272se Weight: 0.3g	Special find no: Stratigraphic phase: XCV Description: 8 pieces	Context: 316ne Weight: 4.62g
Special find no: Stratigraphic phase: XCV Description: 1 piece	Context: 356nw Weight: 0.5g	Special find no: 449 Stratigraphic phase: XCV Description: 1 piece	Context: 155nw Weight: 1.77g
Special find no: 488 Stratigraphic phase: XCIV Description: 1 piece	Context: 74sw Weight: 0.18g	Special find no: Stratigraphic phase: XCII Description: 7 pieces	Context: 367sw Weight: 5.21g
Special find no: Stratigraphic phase: XCII Description: 1 piece	Context: 364ne Weight: 0.7g	Special find no: Stratigraphic phase: XCII Description: 9 pieces	Context: 389sw Weight: 6.84g
Special find no: Stratigraphic phase: XCII Description: 1 piece	Context: 364ne Weight: 0.93g	Special find no: Stratigraphic phase: XCII Description: 6 pieces	Context: 364ne Weight: 3.74g
Special find no: 2993 Stratigraphic phase: XCII Description: 1 piece	Context: 365nw Weight: 0.63g	Special find no: Stratigraphic phase: XCII Description: 5 pieces	Context: 365nw Weight: 7.8g
Special find no: Stratigraphic phase: XCII Description: 5 pieces	Context: 366 Weight: 4.9g	Special find no: Stratigraphic phase: XCIII Description: 1 piece	Context: 73nw Weight: 0.6g
Special find no: 644 Stratigraphic phase: XCIII Description: 1 piece	Context: 180nw Weight: 0.03g	Special find no: Stratigraphic phase: XCIII Description: 2 pieces	Context: 73sw Weight: 0.67g
Special find no: 1584 Stratigraphic phase: XCIII Description: 6 pieces	Context: 264nw Weight: 0.51g	Special find no: 2959 Stratigraphic phase: XCIII Description: 1 piece	Context: 304ne Weight: 1gm
Special find no: 494 Stratigraphic phase: XCIII Description: 1 piece	Context: 73sw Weight: 1.14g	Special find no: Stratigraphic phase: LXXV Description: 1 piece	Context: 494ne Weight: 1.2g
Special find no: Stratigraphic phase: XCI Description: 5 pieces	Context: 399ne Weight: 7.49g	Special find no: Stratigraphic phase: XCI Description: 7 pieces	Context: 416ne Weight: 9.12g
Special find no: Stratigraphic phase: XCI Description: 2 pieces	Context: 399ne Weight: 1.57g	Special find no: Stratigraphic phase: XCI Description: 1 piece	Context: 406sw Weight: 0.9g
Special find no: Stratigraphic phase: LXXXVII Description: 3 pieces	Context: 437ne Weight: 2.6g	Special find no: Stratigraphic phase: LXXXVIII Description: 1 piece	Context: 75nw Weight: 0.87g

Special find no: Context: 383ne
Stratigraphic phase: LXXXIX Weight: 0.46g
Description: 1 piece

8.13.2 Biotite

Two pieces of biotite mica have been discovered, one from period D and one from period B. This allows for a date range from AD 600 to 1100.

Special find no: 163 Context: 58ne
Stratigraphic phase: XCVI Weight: 0.7g
Description: 1 piece of biotite

Special find no: 993 Context: 151se
Stratigraphic phase: XCV Weight: 4.3g
Description: 1 piece of biotite

8.14 Crystalline quartz bead production at Anuradhapura Salgaha Watta

Several kinds of semi-precious stone ornaments, beads in particular, were recovered during the archaeological excavation of Anuradhapura Salgaha Watta. The stone beads were manufactured mainly from chalcedony, quartz, jasper and serpentine in many colours. The most common stone bead shapes recovered are variations on a sphere – spherical, subspherical, oblate and disc shapes are particularly frequent, with cylindrical and biconical shapes less common. The beads vary in length from 0.4 mm to 30 mm. One of the most interesting aspects of these finds at Anuradhapura Salgaha Watta is that the finished semi-precious stone beads are often found in association with unfinished beads (such as unground, unpolished, undrilled or partially drilled beads) and their waste products. These assemblages give us some understanding about the methods and technology of stone bead-making and indicate that the lapidary craft was among the activities performed at the site through the centuries of its occupation. In addition, it is apparent that the technology and the manufacturing processes seem to change very little, if at all, through the long chronology of the site. Among the most common stone material recovered is crystalline (clear) quartz. Descriptive analysis of the crystalline quartz indicates that all principal modification stages are represented in the assemblage. This permits us to model the production sequence for crystalline quartz beads and provides the basis for understanding the manufacturing techniques employed for many of the other kinds of semi-precious stone worked at the site. Actual finds will be used to illustrate the several production stages of the model. Additional information about bead-making in Indian civilization can be seen in the work of E. Mackay (1937, 1938, 1943), M.G. Dikshit (1949) and, more recently, M. Vidale (1987), especially as regards carnelian bead production.

8.14.1 The raw material: quartz crystals

The raw material for the production of crystalline quartz beads was introduced into the site in the form of quartz crystals (see, for example, sf 10523, Fig. 8.3) (see Table 8.2). Crystalline quartz is a silicon dioxide (SiO_2). It crystallizes in the hexagonal system, displays a vitreous lustre and has a hardness of 7.0 on Moh's hardness scale. Quartz crystals tend not to cleave along crystalline planes but will fracture conchoidally or sub-conchoidally (Harben and Bates 1984). Quartz occurs in colourless and coloured forms, and it is the coloured varieties especially – such as amethyst, citrine, rose red and smoky – that have been valued for centuries as semi-

precious stones. Natural quartz crystals are generally hexagonal prisms terminated by two rhombohedra, but the conditions during crystallization are not always ideal and the crystals may grow distorted. Yet the angle formed by the intersecting prism facets always remains 120° , regardless of the crystal's development. Generally only a small percentage of natural quartz crystal is acceptable for jewellery production because of the frequent presence of internal bubbles, mineral particles and veins, which represent the crystal's growth stages. These 'imperfections' make the crystals less valuable and, in addition, more difficult to cut and shape. Fairly large quartz crystals are found mainly in cavities of coarse-grained granites or pegmatites, in some ore veins and in crystalline schists (Harben and Bates 1984).

8.14.2 Method

All the crystalline quartz artefacts were examined macroscopically and with a 10x magnification hand lens. The surfaces on the artefacts were identified as crystal facets, conchoidal fracture scars (negative and positive), ground surfaces, polished surfaces and drilled (internal) surfaces. These surfaces occur either naturally or are produced by different manufacturing techniques. As a result we are able to identify the process that produced each of the kinds of surfaces on each artefact. Because manufacturing techniques have been observed ethnoarchaeologically to occur at different stages of production (Kenoyer *et al.* 1994), we are able to infer the stage of production at which the artefacts were at the point of discard or loss. These include unmodified crystals, crystal cores, flake debris, lithic artefacts in various incomplete stages of ornament production, and whole and broken finished ornaments.

8.14.3 Results

Analysis of the crystalline quartz beads, unfinished beads and debris allowed us to construct a model for bead production at the site. The sequence can be summarized in seven main stages (see also Table 8.2).

STAGE 1: Preparation of the striking platforms

The first stage in the production of crystalline quartz beads is the transversal removal of the two rhombohedras located at the top and the bottom of the quartz crystal. Although the use of a metal blade is one way to remove these two ends of the crystal, saw marks are not present among the debris and cores belonging to this stage.

Instead, the operation was probably done using a simple hammerstone and percussion flaking. Percussion flaking is a much faster method than sawing, but definitely not nearly as accurate, and it may have been common for crystals to be fractured at less favourable points. This would imply that the raw material was reasonably available and not of great inherent value, such that great precision during the fracturing of the crystal in order to limit waste was not required. The removal by percussion of the two ends produces a central piece with two opposite large flat surfaces that could act as striking platforms for further percussion flaking during the next stage. An example of this stage is represented by sf 10523 (Fig. 8.3).

STAGE 2: *Core preparation*

The crystal piece left after the removal of the two rhombohedra can be called a core. This term is used in lithic technology to indicate a mass of lithic material that had flakes removed in a controlled method from its surface, possibly shifting from a direct percussion to an indirect percussion technique. The flakes are removed from the core at this stage with the explicit intention of cutting away the lateral prism facets of the crystal (e.g. sf 8070, Fig. 8.3). The debitage, or by-products of the core reduction, therefore includes primary flakes defined by the presence on the dorsal side of the original facets of the quartz crystal which are, by nature, flat and finely striated. The original crystal facets apparently are always removed even when the desired end product is a faceted bead. If the core is of a large size it may be split into two or more parts, each of which will be further modified into a bead during the next stage.

STAGE 3: *Blank production*

The core reduction continues with additional flakes being removed. The knapping of quartz crystals follows the same basic fracture mechanic principles of flint-working (Bordes 1961; Cotterell and Kamminga 1985, 1987). The core is reduced to a shape with a subquadrangular or subcircular section (Fig. 1d). It is very likely that indirect percussion or pressure flaking techniques are utilized during this knapping stage because more precision is now required. This stage can be called blank production: the core is prepared for bead production, but the desired shape of it will be revealed only during the next stage. The result can be illustrated by sf 284 (Fig. 8.3).

STAGE 4: *Rough-out production*

During this stage the blank is modified by the removal of very small flakes or chips to rough out the basic shape of the bead. The blank is flaked using either indirect percussion or pressure flaking techniques, applied in many different directions from any surface that can be used as a striking platform in order to achieve the desired shape. The resulting rough-out will have a large number of surfaces and slightly projecting ridge lines or arrises; for example, the rough-out of a spherical bead may be found in a shape more similar to a dodecahedron. An example of this stage is represented by artefact sf 2212 (Fig. 8.3).

STAGE 5: *Grinding*

The process of grinding was done using a grinding stone and coarse grains of an abrasive. Several unfinished beads found at the site show the deep scratches or striations left by the abrasives during grinding. An example of this stage is represented by sf 337 (Fig. 8.3). Since material is removed very slowly, grinding allows more careful control over the final shaping of the stone prior to polishing.

STAGE 6: *Polishing*

After the bead is ground to the desired shape, it is polished to a mirror-like finish to favour light refraction through the stone. We suspect that polishing was done using very fine grades of abrasives with a lubricant on a polishing surface that may have been of wood, leather or cloth. An example of this stage is represented by sf 1565, a polished oblate bead that is only partially drilled (Fig. 8.3).

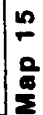
STAGE 7: *Drilling*

Today lapidarists drill a hole through a bead using a small revolving rod or tube with a tip made of a hard stone (the best tip, which is able to cut a wide variety of materials, is of diamond, the hardest naturally occurring substance with Moh's hardness of 10). The item to be drilled is supported in some kind of clamp in a container filled with water that operates as a lubricant and cooling agent. Drills have a very long tradition in prehistory, with archaeological research indicating that this kind of tool was known in southwest Asia since at least the Copper Age. Drills of this kind are quite common in the bead-making assemblages of the Harappan culture (Mackay 1937, Vidale 1987). Drill heads have not been found at Anuradhapura Salgaha Watta, but beads, even from the earliest periods of the site, display the rotational wear patterns indicative of mechanical, unidirectional drilling (e.g. sf 7123, Fig. 8.3). Further evidence for sophisticated drilling is indicated by the rotational wear patterns observed on the inside of unfinished rings and on the artefacts referred to as earplugs. In these cases, both types of artefacts are actually produced during a single drilling episode with use of a slightly conical drilling tube.

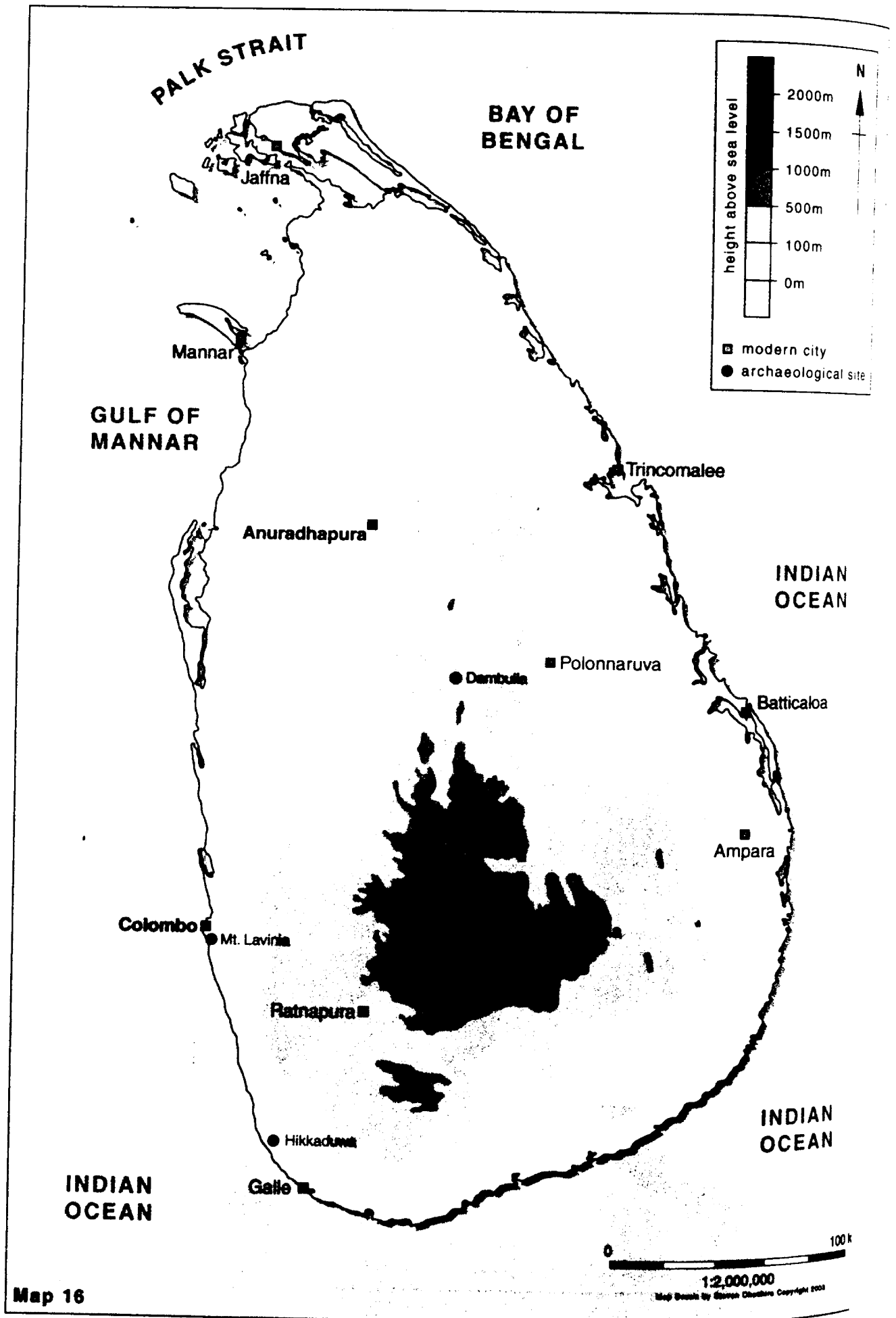
8.15 Conclusion

This chapter has catalogued and described all the stone objects found in trench ASW2, and the production techniques have been hypothesized. The majority of objects (244) were discovered in period F, which dates from c. AD 200 to 600. This time frame also represents the largest variety of bead shapes, indicating that craft activities were highly specialized and well organized at this time. Period D has also yielded much stone material (221 objects), with a weight of 4384.97 g; however, as this is the fill of a robber pit, it is likely that this material has been remixed with other layers, rendering this information unreliable. Table 8.1 displays a gradual increase from period J onwards in both the amount and the weight of the stone objects. The variety and amount of materials indicate a demand for semi-precious

jewellery with good evidence for on-site production. Indeed, some of the materials – such as lapis lazuli from Afghanistan – do not occur naturally in Sri Lanka, suggesting trading networks. Trench ASW2 has provided accurate dating to facilitate this temporal study, while comparison with other projects has allowed spatial research.



Map 15



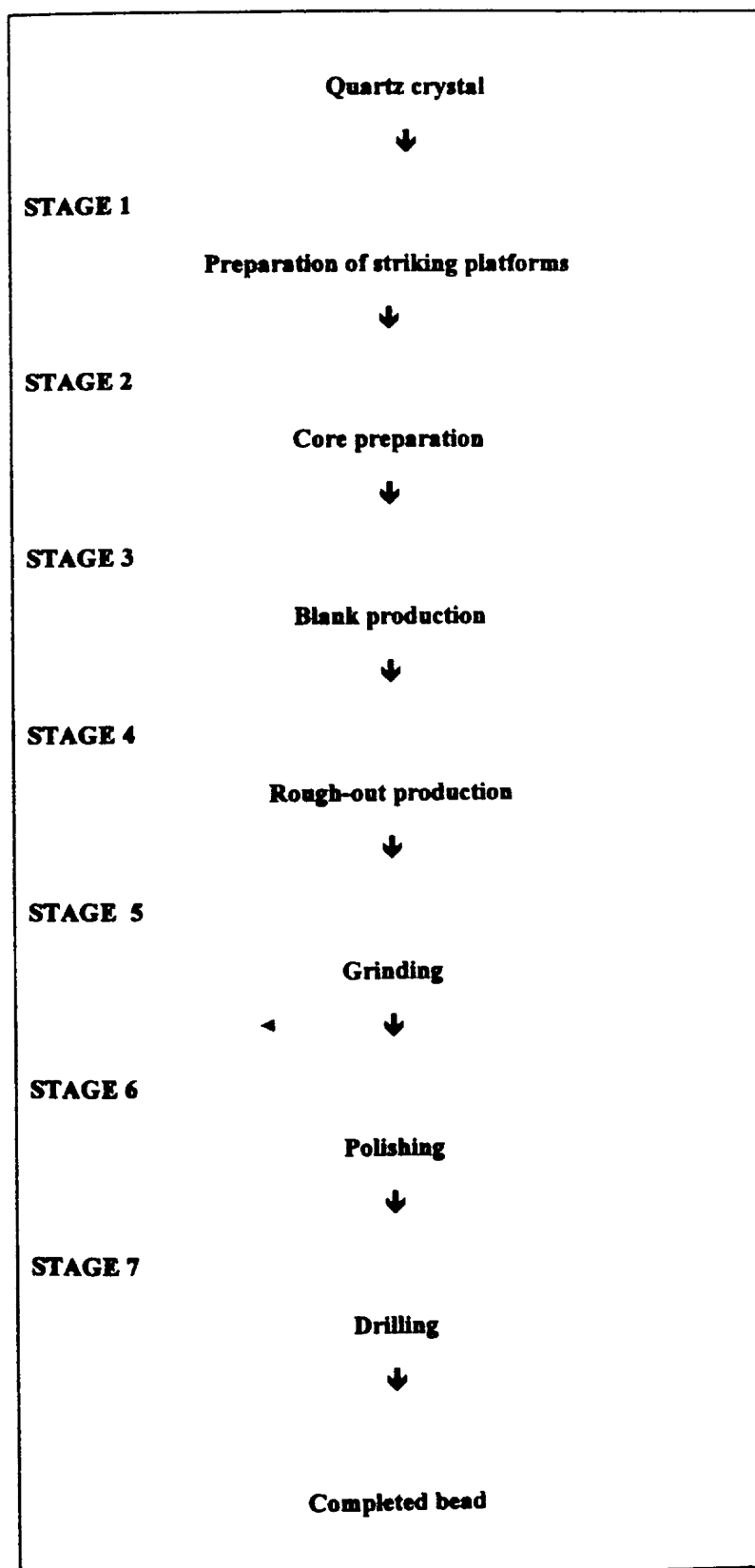
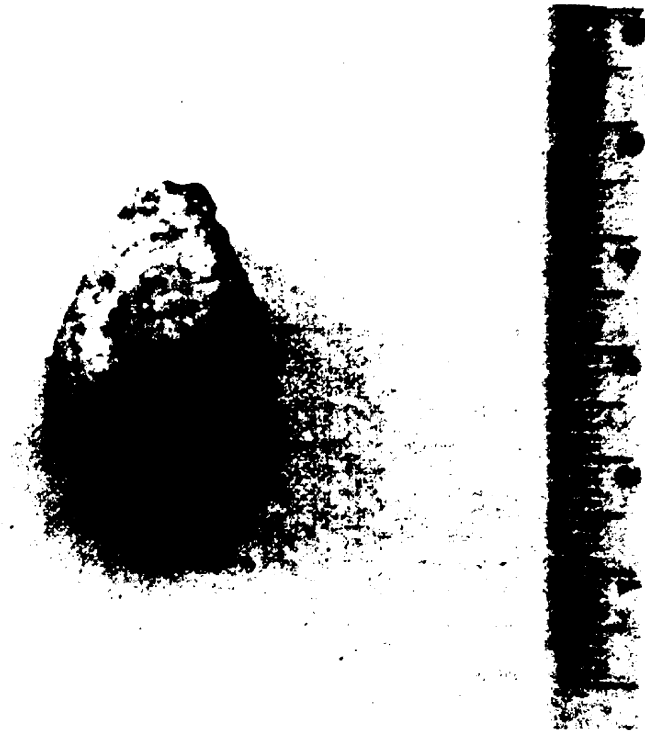


Table 8.2 Crystalline bead production at ASW2

Table 8.1 Stone material

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Unknown	Total
Carnelian	number		3	25	15	51	1	6	2			103
	weight (g)		1.46	36.82	27.21	162.84	2.09	3.18	0.66			234.06
Lapis lazuli	number				2	1		2				5
	weight (g)				0.75	0.53		0.51				1.79
Greenstone	number		10	11	12	6						39
	weight (g)		521.41	3429.95	1751.68	3247.68						8950.72
Sapphire	number			1	2							3
	weight (g)			0.07	0.23							0.3
Chert	number		1	8	3	1						13
	weight (g)		0.86	22.36	11.05	0.84						35.11
Agate	number			1	8	3						12
	weight (g)			0.28	11.65	3.89						15.82
Chalcedony	number		2	1								3
	weight (g)		4.64	0.82								5.46
Jasper	number		2									2
	weight (g)		1.65									1.65
Sard	number							1				1
	weight (g)							4.43				4.43
Garnet	number		3	21	33	8		14	2			81
	weight (g)		2.21	14.84	22.5	4.52		20.91	1.03			66.01
Amethyst	number		11	23	32	24		1				91
	weight (g)		13.73	27.57	140.19	38.24		1.21				220.94
Amazonite	number			1								1

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Unknown	Total
	weight (g)			3.52								3.52
Clear quartz	number		21	69	66	54		18	3		1	232
	weight (g)		73.19	148.03	276.49	421.43		39.34	3.56		0.12	962.16
Smokey quartz	number		3	23	26	18		7	5		1	83
	weight (g)		190	571.07	103.27	92.85		48.36	11.18		89.79	1106.52
Crystalline limestone	number			2	7	2						11
	weight (g)			1.28	10.84	2.06						14.18
Soapstone	number					5						6
	weight (g)					267.44						267.44
Coral	number			1	1	5						7
	weight (g)			61	30.18	118.37						209.55
Quartzite	number			1	24	1						26
	weight (g)			0.5	26.89	0.6						27.99
Muscovite mica	number		17	34	14	8						73
	weight (g)		18.69	70.28	34.7	24.21						147.88
Biotite mica	number		1	1								2
	weight (g)		0.7	4.3								5
Total	number		69	223	245	187	1	49	12		2	793
	weight (g)		828.54	4392.69	2447.63	4385.3	2.09	117.94	16.43		89.91	12280.53

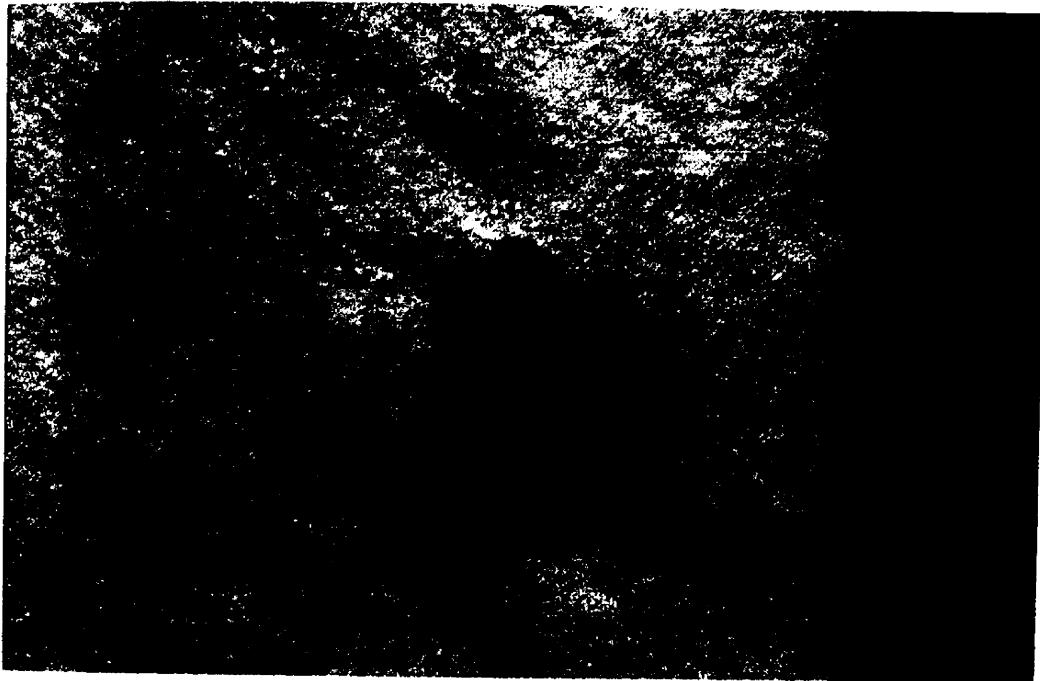


Greenstone conch-shaped bead (sf 2947)

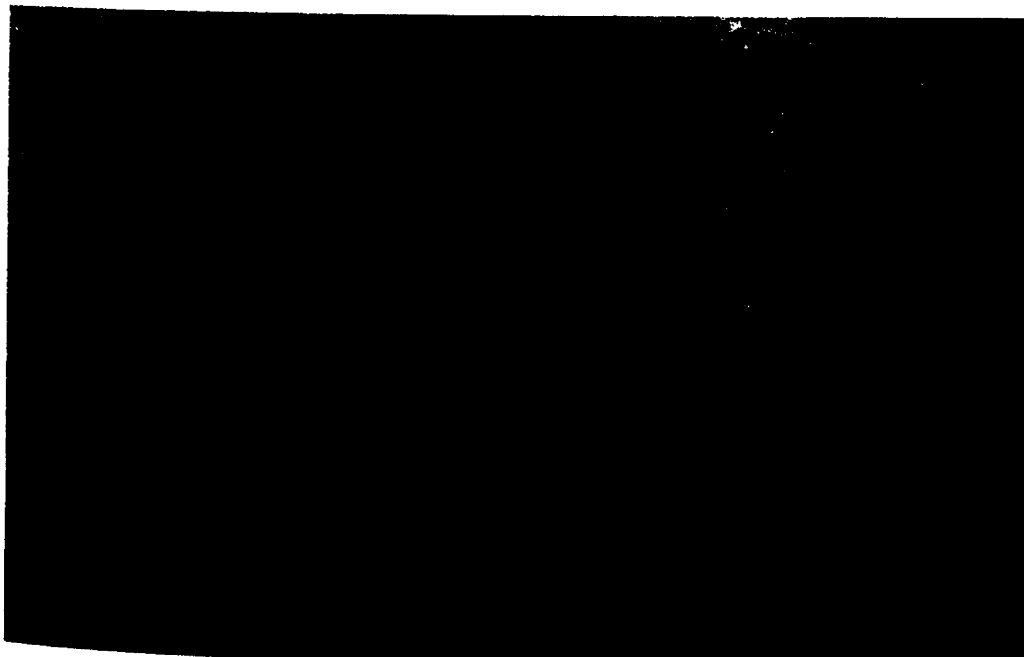


Greenstone conch-shaped bead (sf 2947)

Plate 8.1: Stone objects

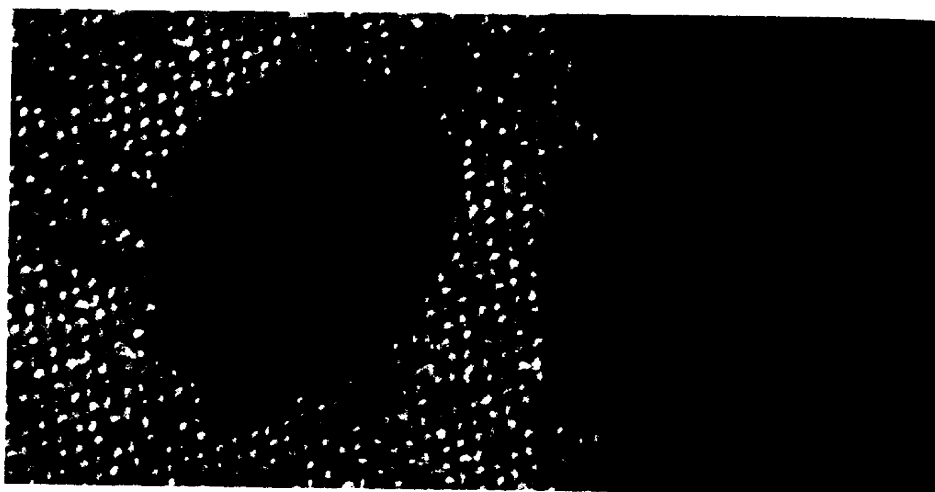


Greenstone pendant (sf 199)



Carnelian bead blank (sf 1050)

Plate 8.2: Stone objects

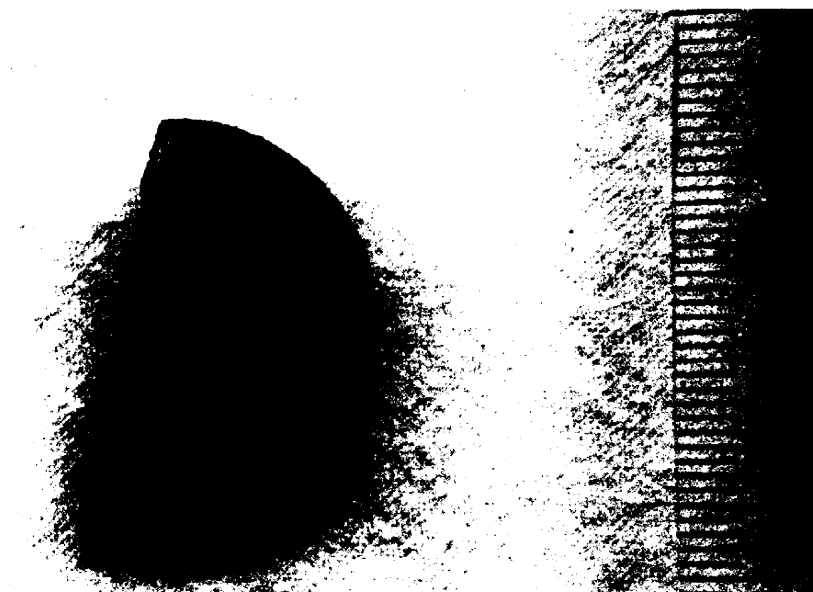


Carnelian jewellery insert with humped bull (sf 261)

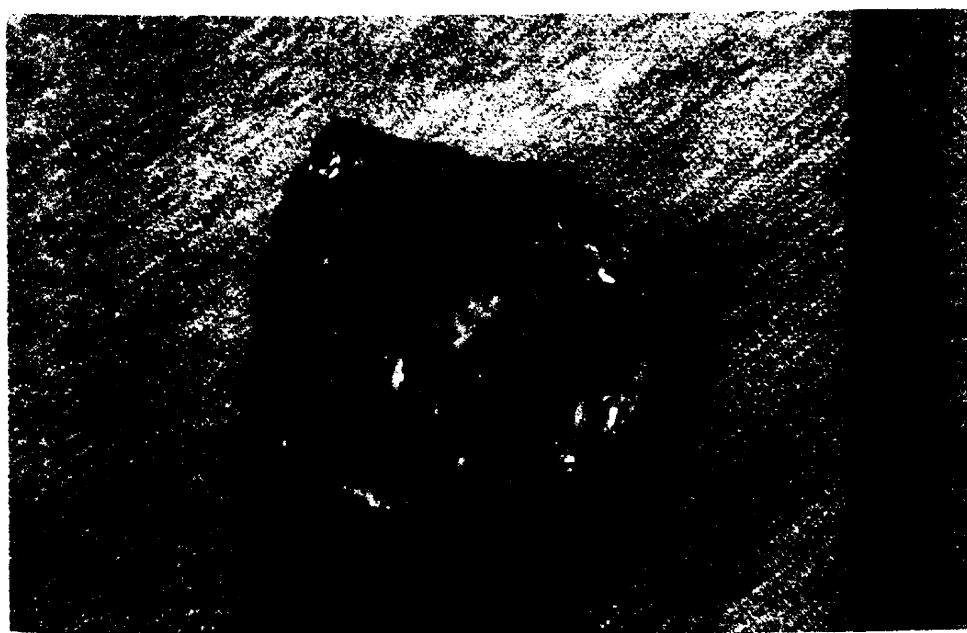


Carnelian shaped bead blank (sf 2871)

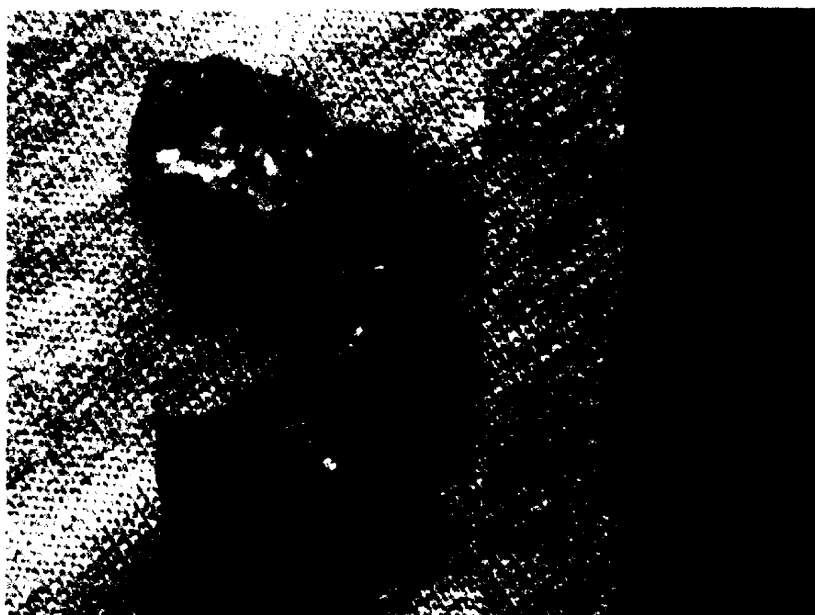
Plate 8.3: Stone objects



Carnelian button bead (sf 6650)



Clear quartz intaglio or ring blank (sf 792)

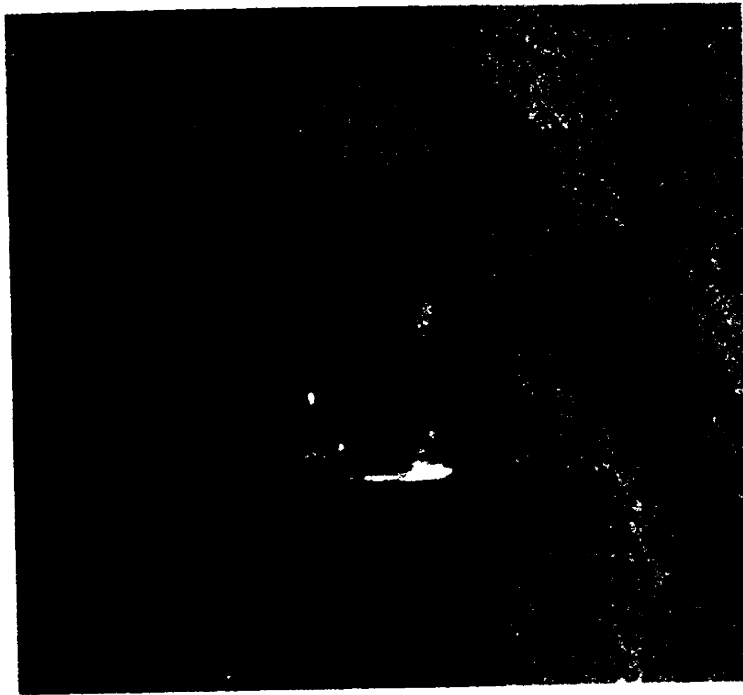


Clear quartz ring blank (sf 2149)

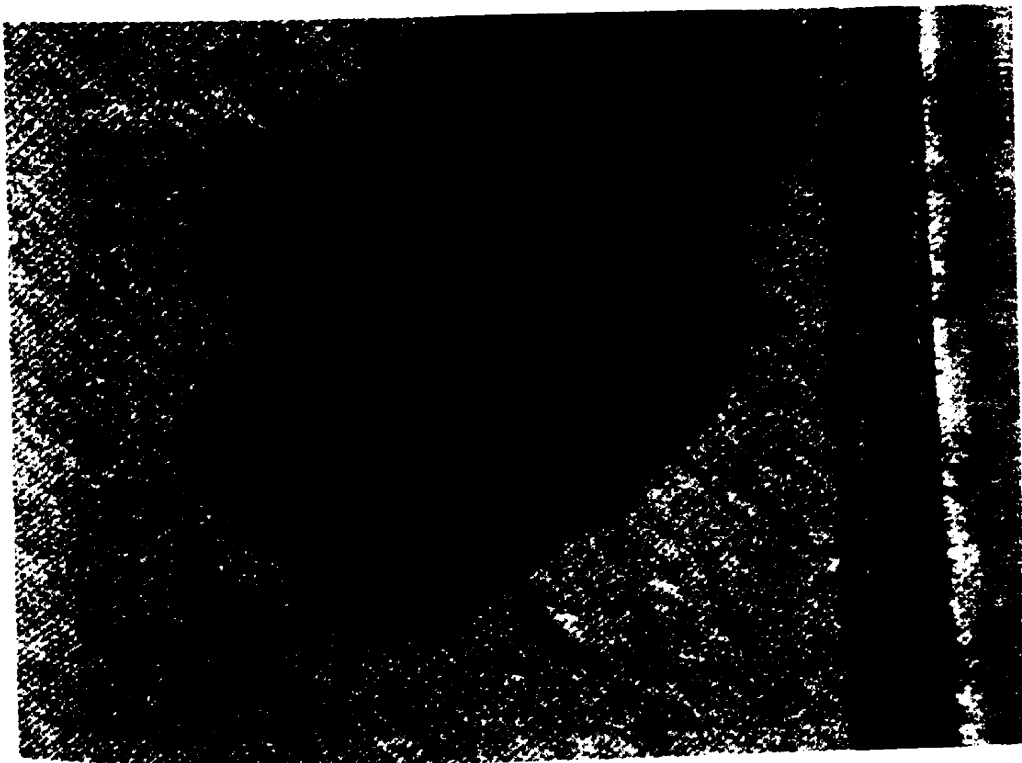


Clear quartz oval bead partially drilled (sf 1565)

Plate 8.5: Stone objects

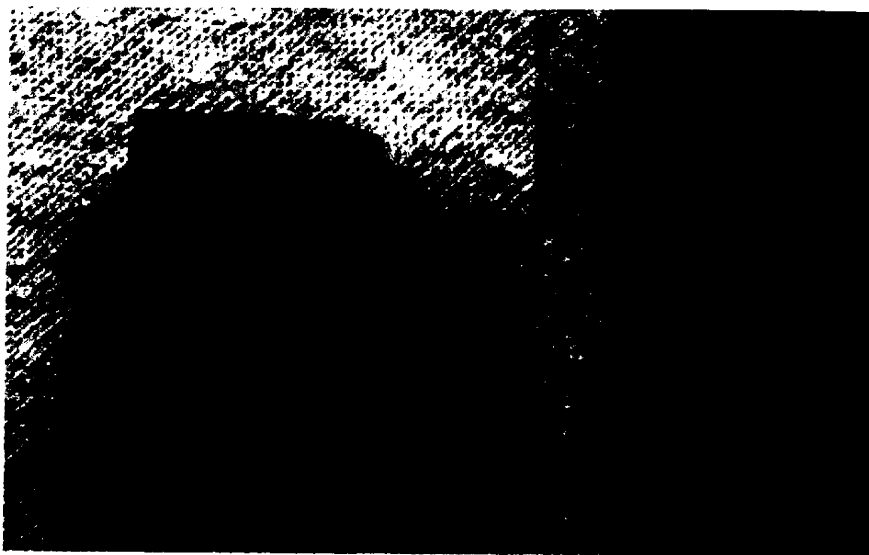


Clear quartz stupa (sf 1609)

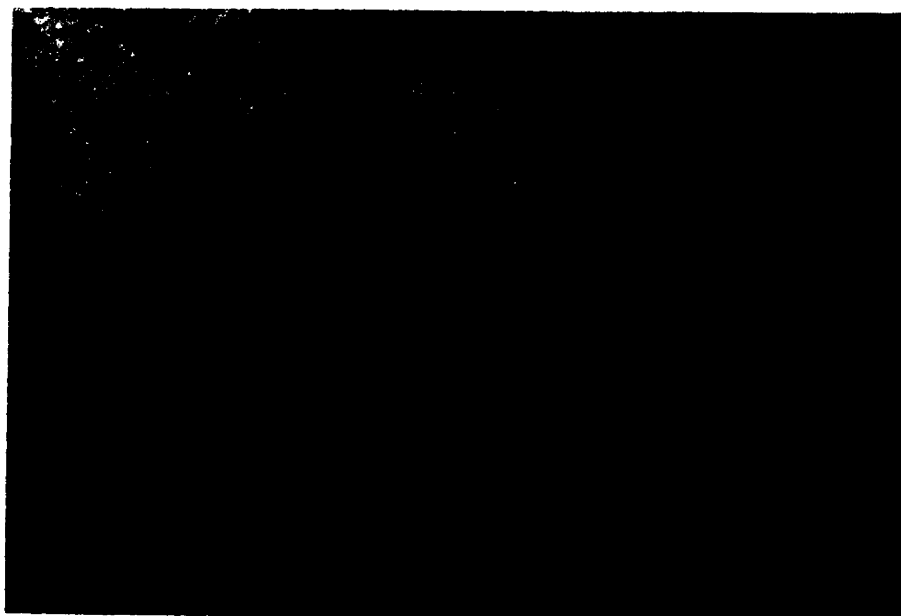


Quartz crystal (sf 10523)

Plate 8.6: Stone objects



Clear quartz shaped blank or ring core (sf 5284)



Clear quartz shaped blank or ring core (sf 5284)

Plate 8.7: Stone objects

Stone Objects

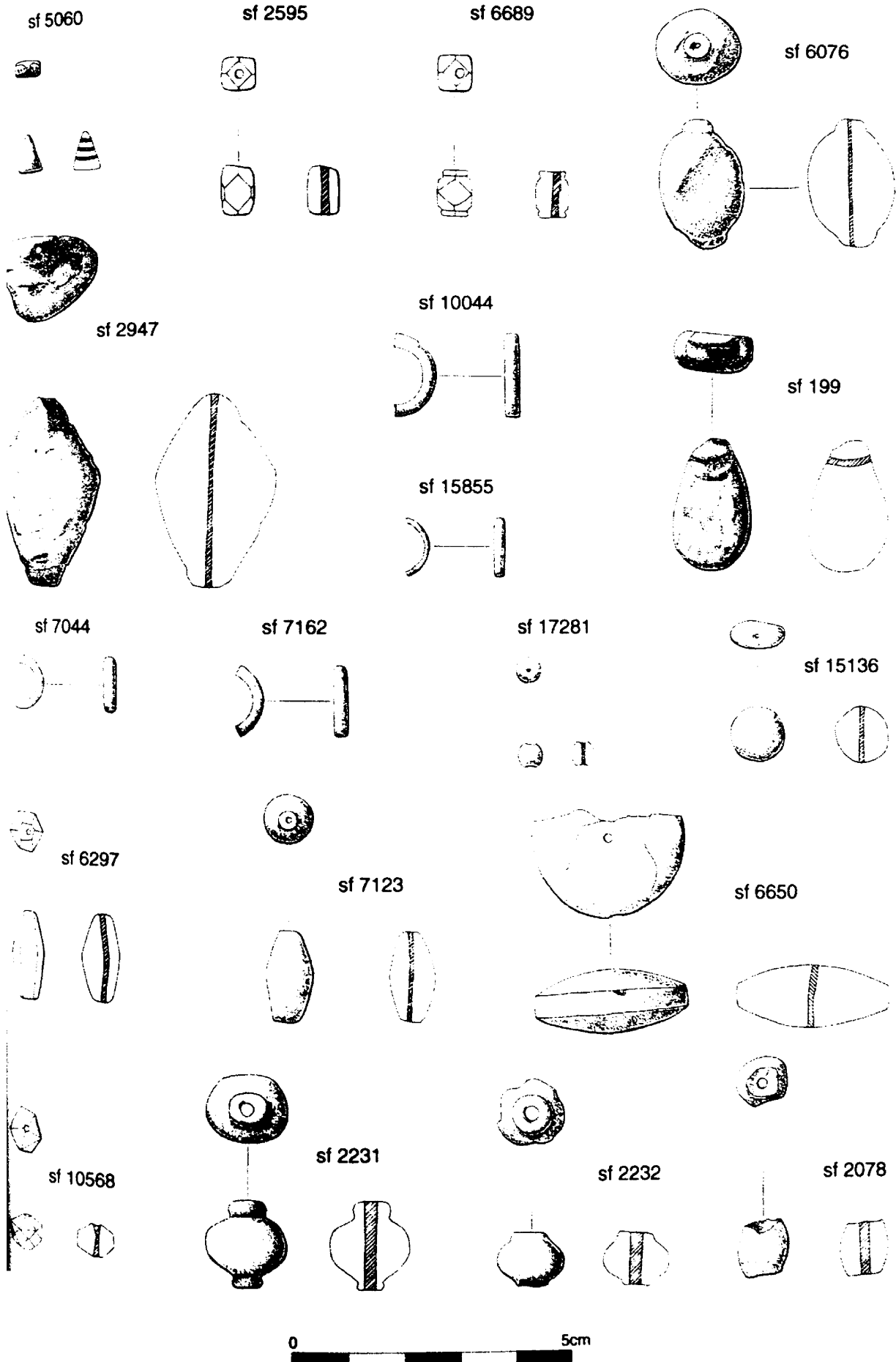


Figure 8.1 Stone Objects

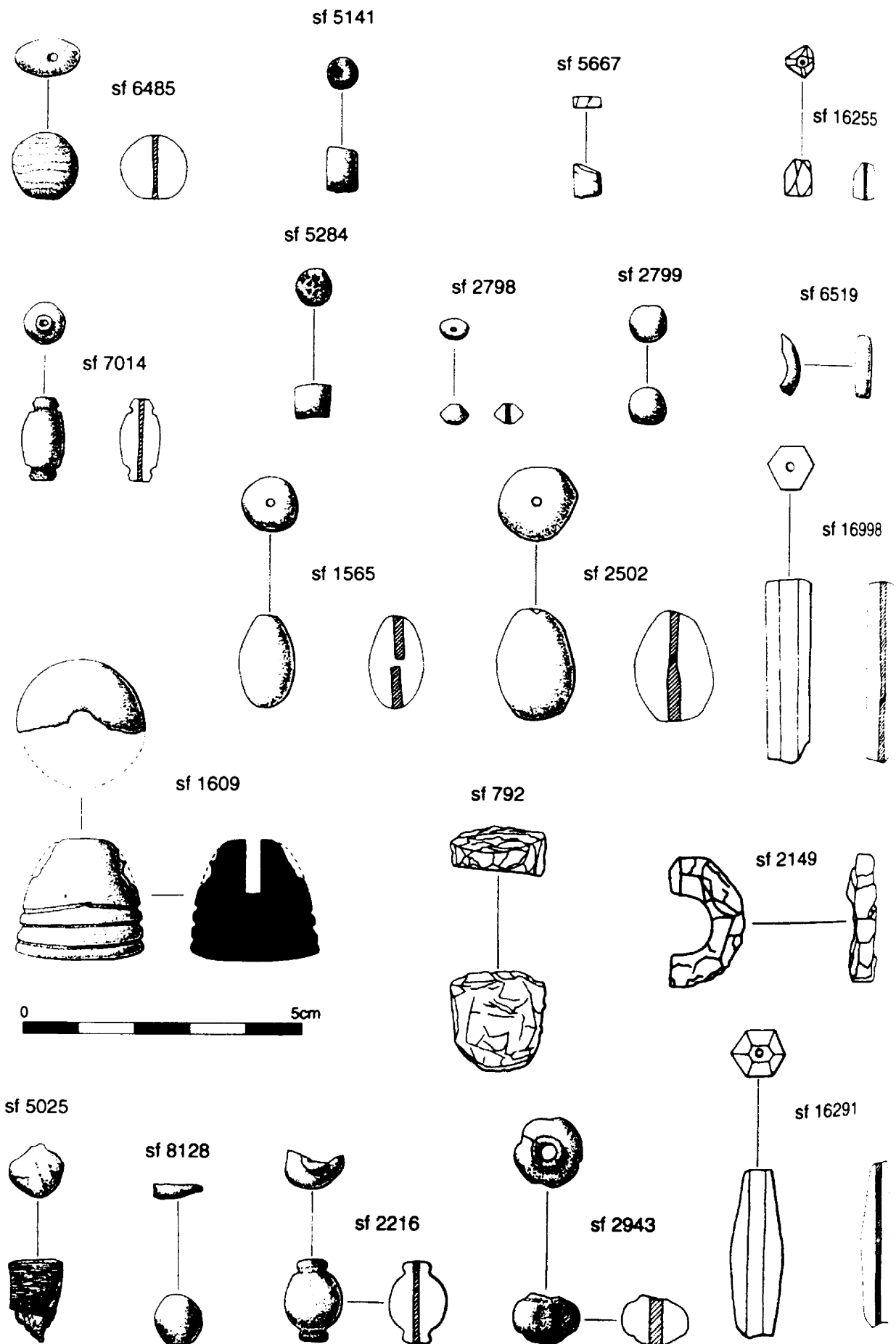


Figure 8.2 Stone Objects

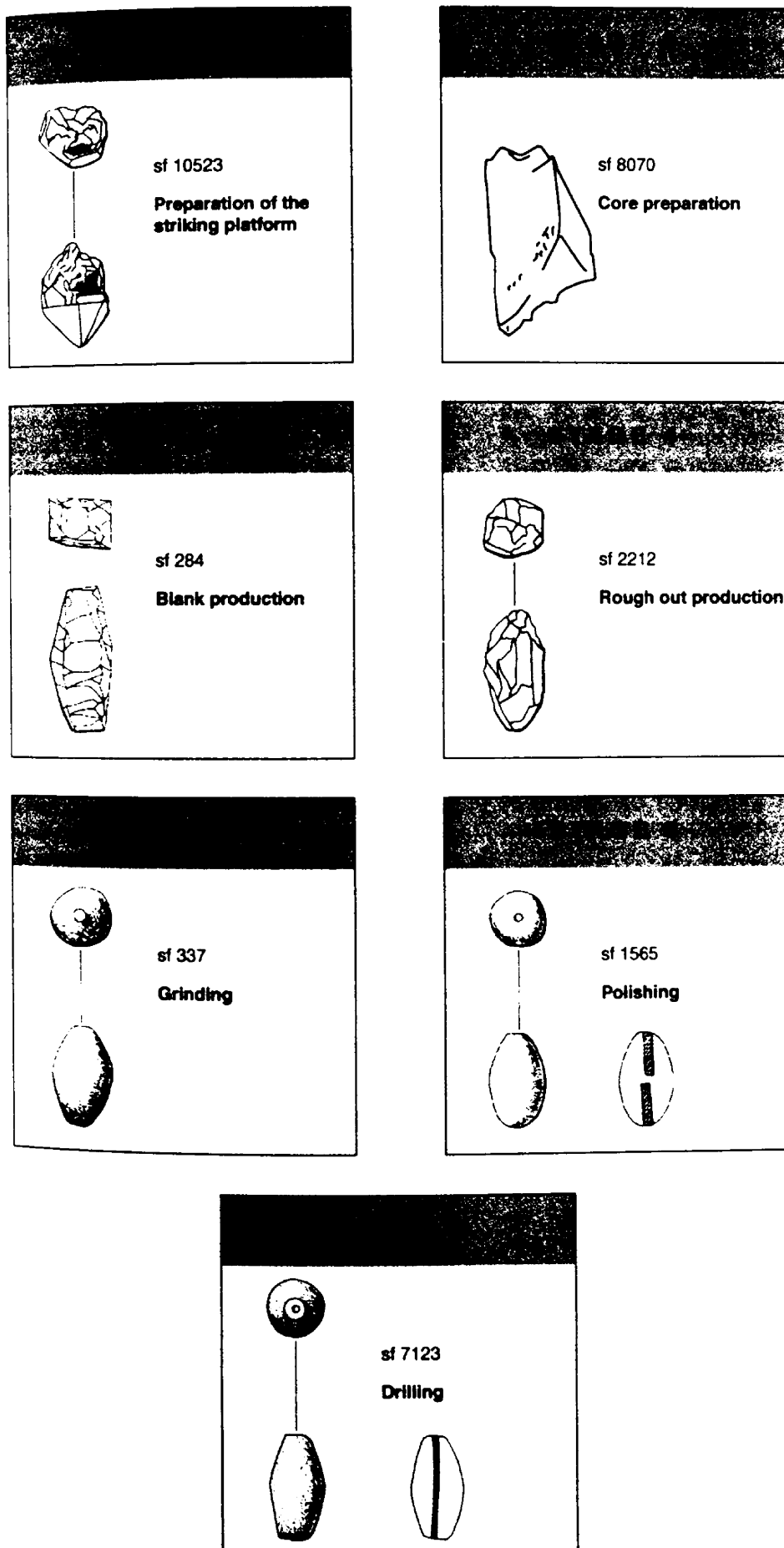


Figure 8.3 Stone Objects

CHAPTER 9

INSCRIPTIONS AND GRAFFITI

F.R. Allchin

9.1 Introduction

This chapter offers a brief description of 28 inscriptions and 77 letter-like signs discovered in the excavation of ASW2, together with 377 other symbols or graffiti. All but three of the inscriptions are scratched on the surface of potsherds and most are incomplete; none of the inscriptions were found on complete pots. Similarly, almost all the graffiti are from potsherds, only one or two being incised on complete pots. The majority of the scratched sherds are of the coarse ware category 16, black and red ware, which – as we have seen above (Table 6.5) – was one of the most common wares found throughout the early periods of the site, from period K through to G. From the entire series of graffiti and inscriptions it is evident that the signs were applied to the pots only after firing and thus may be taken to have been made by or for the benefit of the owner of the pot.

As we had already been alerted by Dr Deraniyagala's discovery of inscriptions on pottery in his sondages at Anuradhapura, we kept a sharp eye on the pottery as it was washed, and we believe that few pieces escaped our notice. However, a substantial number of graffiti are not included in the catalogue, as they either did not add new types or were largely unrecognizable as types. They are however listed for statistical purposes in Table 9.1. Once a sherd had been identified as bearing an inscription or graffiti, it was placed in a special register and an eye-drawing or tracing was made. Subsequently, rubbings were made of all graffiti, while in the case of all inscriptions of more than one *akṣara* (an *akṣara* is a basic script component, typically a consonant-vowel unit) a photograph was taken. In the accompanying plates of the graffiti and single *akṣaras* we have retained the original re-copies, which we believe are sufficiently accurate for our purposes.

It must be noted that in this chapter all the inscriptions and graffiti are listed and illustrated in six catalogues (Catalogues 1–6). Each reference to an inscription or graffiti involves two elements: the first number is that of the catalogue, the second number (and any further numbers) is that of the item itself. References are given in two forms, extended and concise. For example the extended form is written 'Catalogue 6, No. 6.5.6', while the concise form will be simply No.6.5.6.

Four graffiti are recorded from the interface of period K3/J1, three from J1, twelve from period J2 and sixteen from period J3 (see Table 9.1). It is even probable that the earliest graffiti belong to period K3 (see Volume 1, Chapter 6: Dating the Sequence: 126–7). Of these from period J3, five sherds have scratched marks

that are similar to the single Brahmi *akṣaras* *ka*, *ga* and *ta*. The catalogue numbers of these are listed in Table 9.2 below. In the absence of any complete inscription from this period their presence may be taken as an indication that the use of writing was already current. Similar Brahmi-like letters have occasionally been reported on Megalithic grave pottery from peninsular India. In the next structural phase, J4, the first three inscriptions are found, along with two further single *akṣaras* and fourteen other graffiti (see Table 9.2). From that time forwards, through the final stage of period J and through periods I, H and G both inscriptions and graffiti occur in more or less equal numbers. From period G3 onwards the number of inscriptions and graffiti declines. It is worth noting that the occurrence of inscriptions and graffiti was not evenly spread: certain building periods show a much greater frequency than others. Thus periods I1, H and G2 produced 73, 55 and 47 examples, while periods I5, G1 and G4 produced only 6, 12 and 1 respectively. The reason for this discrepancy is not clear, but several possible interpretations may be suggested.

9.2 Inscriptions

9.2.1 General features and scripts encountered

All the inscriptions appear to be in early Brahmi script, and we cannot recognize any other script. A certain number of single signs are of doubtful character, as they do not appear to belong to a script as such; also some of the single *akṣaras* listed below may perhaps have been graffiti rather than letters. For instance the element of the 'Dominant' sign that we refer to as a *mangala-kalaśa*, urn, coincides with one of the variant forms of the letter *ma*. Most of the inscriptions belong to that variety of script which Dr Iravatham Mahadevan has justifiably characterized as 'Sri Lankan Brahmi', in that they share common characteristics with the script used for the many early rock and cave inscriptions from Sri Lanka (Mahadevan 1995) (see Maps 17 and 18). A single symbol, occurring on one sherd beside what we take to be an arrow sign, appears to be one of the distinctive letters introduced into Tamil Brahmi to represent the Tamil *ṇa* (No.6.5.6, sf 17530). This sherd comes from a very early context (period J2), that is from a period in which there are only meagre and still indefinite indications of the use of writing in our excavation. In these circumstances, and in view of its uniqueness, doubt must remain regarding the reading of the sign as a Tamil Brahmi letter.

The Kharosthi script appears to be absent. A number of the single symbols listed in Catalogue 3 (section 9.2.7.3) appear to be either unusual compound forms of Brahmi letters or even, in some instances, symbols resembling monograms on Indo-Greek or Indo-Scythian coinage. We are inclined to regard these resemblances as fortuitous, or of a general rather than a particular kind, and thus too random for such identification to be given serious attention.

9.2.2 Nature and scope of inscriptions

As we remarked, many of the inscriptions are incomplete, being on small fragments of broken pottery, and all are short, the longest being of eleven and six *akṣaras* respectively. Where it is possible to hazard a meaningful reading, the inscriptions appear to contain personal names in either the genitive or dative cases, or without clear indications of the case. Among the sherd inscriptions, two (Catalogue 1, Nos 19 [sf 25133] and 20 [sf 228A]) contain names combined with the title *abi*, lady, princess, indicating that the named person was a female member of a royal family. The clay sealing (Catalogue 4, No. 2 [sf 10249]) gives not only the name of its owner, Maga or Magaha, but states also that he was a *purumaka*, chief, and the son of Tiśa (presumably a king called Tiśa). It seems clear that the scratched inscriptions on the rims or sides of bowls, lids or water pots are intended as statements of ownership, as already discussed in some depth in Coningham *et al.* 1996.

9.2.3 Stratigraphic evidence for the inscriptions

Table 9.2 lists the stratigraphic position of all inscriptions, including single *akṣaras* and other letter-like signs.

Period J

The earliest occurrence of signs resembling single Brahmi letters is in period J3. They include *ta*, which in one case (Catalogue 2, No. 35 [sf 17521]) is of typically early form, although in another it is somewhat strange (Catalogue 6, No. 15.34 [sf 10675]), being written in reverse, with its longer stroke to the right, terminating in a rounded curve to the left. The letter *ga*, too, is of typically early form (Catalogue 6, No. 15.33 [sf 17523]). In Catalogue 6, No. 5.6 (sf 17530), the Tamil Brahmi form of *na*, occurring beside an arrow sign, is similar to that known hitherto only from later dated contexts in India. It must be recognized that this single example of this letter can scarcely be regarded as an inscription, let alone as establishing the existence at this early date of the modified Tamil Brahmi script. Nonetheless, its occurrence needs explanation and is unlikely to be a mere fluke. At least two of the single letters (*ga* and *ta*) are included in Lal's list of symbols (Lal 1962, symbols 1 and 2), and examples of both the rounded and angular versions of Brahmi *ma* are found on pots from several Megalithic grave sites in peninsular India.

Period J4 produced three inscriptions, all unfortunately incomplete, and two single *akṣaras*. The first inscription (Catalogue 1, No. 15 [sf 17332]) includes

three letters reading *devasa*, the first two letters being of normal early form and the third appearing to be crudely and inexpertly written; the second (Catalogue 1, No. 16 [sf 17308]) includes only the upper parts of three *akṣaras* but may be reconstructed as *go de (n)a* or *go de (v)a*. Several features of the short, incomplete text raise a doubt as to whether it may be out of stratigraphic context, as epigraphically one would expect it to be somewhat later. Its presence may equally suggest a different cause, namely that, while inscriptions Nos 1.15 and 1.17 were written by novices who had not as yet acquired skill in writing, this piece was written by an experienced hand. If this explanation were correct – and we can see no way of proving it – it might lead us to suppose that the evolved Brahmi script was already in existence at this early date but that some writers were as yet inexperienced. This complex pattern is also shared in Deraniyagala's adjacent trench ASW88 (Deraniyagala and Abeyratne 2000). The third inscription (No. 1.17 [sf 17420]) is also problematic: the first letter is almost entirely missing, while the second represents a crudely drawn *lā* and the third *ku*. This is certainly written in an ungainly fashion, which may well indicate its earliness in the development of writing in this locality. The other two single letters (Catalogue 6, Nos 15.28 [sf 17427] and 24 [sf 17428] respectively) are *ka* and *ta*, the latter being in reversed form, similar to that of Catalogue 6, No. 15.34, discussed above. We shall return to the problem of these early inscriptions and their significance in the conclusion to this chapter.

Period J5 produced only one inscription (Catalogue 1, No. 18 [sf 17425]) and a single *akṣara* (Catalogue 2, No. 21 [sf 17093]). The inscription is of three *akṣaras* only: all three are very crudely drawn and it is difficult to offer a firm reading. The first is a crude form of *ma*, the second a crude but by no means unknown form of *ta*, and the third a crude and even doubtful form of *na*, apparently written sideways on. This variant form is occasionally encountered in Sri Lanka in early Brahmi inscriptions of somewhat later date. We conclude that this inscription is the latest in our series to show these crude early forms. Henceforward there is a remarkable uniformity of script and writing ability. The single letter from J5 is *ma*, and it is unremarkable.

Period I

Period I1 produced four inscriptions and ten single letters. As a group these examples appear to represent a marked change from the script of the previous period. The outstanding symptom of this change is the greater regularity of the letter forms and the neatness and fluency of the writing. These characteristics are particularly marked in three of the inscriptions (Catalogue 1, Nos 14, 20 and 24 [sfs 17330, 228A and 1472A]). It may be remarked that several other inscriptions and single *akṣaras* from this period are written in a similarly neat hand. As it seems unlikely that all are 'out of context', they suggest that at the opening of period I there was a marked advance in the style of writing from that of the preceding periods. The inscribed materials from the succeeding periods show that the neat style was maintained thereafter.

Periods 12–18 produced markedly smaller numbers of inscriptions than their predecessor, but their character remains fairly closely in line with it. Of the two inscriptions from period 12, the first (Catalogue 1, No. 12 [sf 17040]) reads ‘...*piyagata*’, written somewhat carelessly in a fluent but largish script. However, this inscription, when compared with those of period J, shows much greater freedom and control on the part of the writer. The second inscription (No. 22 [sf 139A]) appears to read ‘...*ha kaśapa*’, possibly a Prakrit version of the name Kasyapa, written in a small neat style. Of the following period 13, inscription No. 10 (sf 17025) reads ‘*purāya*’, presumably a personal name, and No. 25 (sf 17095) reads ‘*ravo*’. In the final structural phase of period I (18), two inscriptions (Nos 1 [sf 16472] and 2 [sf 16454]) read ‘*timula*’ and ‘*damāne*’ respectively. These inscriptions introduce a new feature, not hitherto marked in the series, in that the form of *ma* becomes noticeably dumpy, either being markedly squarish in form or else taking on a near-circular body with two short curving arms above. This tendency is subsequently noticeable in the inscriptions of the following period, H.

Period H

The unusual nature of the deposits of period H has been commented on above. For whatever reason, they coincide with the abandonment of this part of the site for normal habitation and its use for some sort of industrial activity. The period also produced a good number of inscriptions, including the clay sealing (Catalogue 4, No. 2 [sf 10249]). Sadly, the other inscriptions are all short and no complete words or names can be recognized. The sealing reads ‘*tiśa puta magaha purumaka*’, which we translate as ‘Magaha (or Maga), the Purumaka, son of Tiśa’.

Period G

In period G there is a marked decline in the number of inscriptions on pottery. Period G2 includes only four single *akṣaras*, G3 only one, and G1 and G4 no inscriptions at all. G5 produced only two inscriptions, one (Catalogue 1, No. 19 [sf 25133]), with the interesting reading *tiśabiya*, ‘the princess Tiśa’, and the other (No. 21 [sf 8190]), of only two *akṣaras*, reading *tima*. The much greater building activity witnessed in this period and continuing into subsequent periods suggests that, already by this time, earlier deposits were being disturbed. Both these inscriptions are in the style of script which prevailed during the third to first centuries BC and may well indicate that the princess referred to is the same as Abi Tiśa, daughter of King Gamini Uti, referred to in inscriptions 34 and 47 from Mihintale (Paranavitana 1970). In this case a date of c. 200 BC appears quite consistent.

Periods F–C

No inscriptions are reported from these periods.

Period B

Only two further inscriptions were discovered during the excavation of the later periods, and both were on a small stone goldsmith’s mould (Catalogue 4, No. 1 [sf 166]),

which bore two nearly identical versions of the same text, the one reading *vacaḍataśa* and the other *vacaḍataha*. The meaning in both cases is clear: ‘of (or belonging to) Vacadata (Vatsadatta)’. The points of interest are the dialectic variation of the genitive case *sa* or *ha*, and the substitution of the ‘correct’ dental *da* for the ‘incorrect’ cerebral *ḍa* of the former version. Both inscriptions are more neatly written than any of the other scratched examples. Their epigraphical age is open to discussion, but we are inclined to date them to the second to first centuries BC.

9.2.4 The development of the script

As we have seen, the stratigraphic sequence of the inscriptions, whose chronology is derived from radiocarbon dating, extends over four centuries or more. There are some points at which this dating sequence does not coincide exactly with postulated epigraphical development. For example, epigraphically it is possible that No. 1.20 (sf 228A) belongs to the late third century or early part of the second century BC on account of the fluency of its script, although stratigraphically it occurs in period I1 and should be dated accordingly to the third quarter of the fourth century BC. Similarly No. 1.19 derives from G5, in a context that is not likely to be earlier than the late first century BC to early first century AD; yet epigraphically it seems to belong to the early second century BC. In this case, the disturbance of earlier strata during one of the periods of construction in the third to second centuries BC may be called in to explain the difference. Difficulties of this kind must be admitted and are perhaps inescapable in the light of the nature of the evidence we are dealing with. However, having noticed such anomalies, we are still left with a main body of data covering the development of the script through the radiocarbon-dated centuries involved. We shall return to a discussion of chronological matters in the conclusion (see section 9.4.1.1).

As already stated, the inscriptions are all in Brahmi script. In one sense they show remarkably little change or evolution during the period represented. However, taken as a group, the examples from period J3, J4 and J5 show a number of features that may indicate their earliness, although those from early levels in trench ASW88 appear more refined (Deraniyagala 1992: 739–50). A number of the letters from ASW2 are crudely written and by comparison with the mean provided by the (much later) Asokan pillar inscriptions show distorted forms. Thus, while *ka*, *ku*, *ga*, *ta*, *da*, *de* and *va* are all clearly recognizable, initial *e*, *ma* and *la* are distorted. Again, in Catalogue 3, Nos 15 (sf 16149), 29 (sf 16372) and 34 (sf 17034), *ta* appears to be reversed. Even more problematic are the second and third letters of inscription No. 24 (sf 142A), the former of which is only doubtfully read as *ta* and the third as cerebral *na*. If the latter reading is correct, it implies that the normal form of this letter is here written sideways on.

Period I offers a much larger selection of letters and inscriptions, and even if we discount inscription No. 1.20, the range of clearly written and easily recognizable letters is considerable. In No. 1.14 (sf 17330) *ja* has already assumed its typically Sri Lankan form; in

No.1.13 (sf 17138) *ya* has already assumed its characteristically deep form, while it still retains its more typically North Indian form in No.1.12 (sf 17040). In Nos 1.10 (sf 17025) and 1.25 (sf 17095) *ra* has its typical 'corkscrew' form. Initial *a* has its characteristically divided curves, as also in Bhattiprolu. The form of *ma* found in the final stage of this period also shows some change from the earlier occurrences. It approaches the typical 'southern' type found at Bhattiprolu, but showing (in inscription No.1.1 [sf 16472]) a marked angularity of the lower part of the letter and also (in No.1.2 [sf 16454]) a dumpy type with exaggerated circular form and short arms attached above.

Summarizing our view of the script during this period, we would remark that from period II forward there is a marked development in the fluency of writing and the regularity of letter forms. A number of letters are closer to the standard forms of Asokan and North Indian scripts, while some aberrancies still occur. For example, the form of *śa* in inscription No.1.22 (sf 139A) appears to be the reverse of normal. We also notice that, in the last phase of the period (I8), the squat and squarish forms of *ma* appear.

Period H plays a pivotal role in clarifying some of the changes we have seen in the earlier periods. The script shows a continuation of the same tendencies as those of the previous period. The script of the Magaha sealing (Catalogue 4, No. 2 [sf 10249]) is closely in line with that of the many single and double *akṣara* inscriptions from the same period. The apparent correspondence of the content of the Magaha sealing to inscription No. 22 at Mihintale (Paranavitana 1970), although the two were almost certainly written by different hands, encourages us to believe that they refer to the same individual.

This brings us almost to the end of the repertoire of inscribed materials from Anuradhapura. From period G1 forwards there is a marked decline in the number of inscriptions: four single *akṣaras* in G2, one in G3 and two inscriptions in G5. The first five of these appear very much the same as those of the previous two periods. So too does the script of the final two. Inscription No.1.19 (sf 25133) refers to the lady Tiśabiya, whom we may suspect to be the same as the Abi Tisa of inscription No. 34 from Mihintale. If, as we are inclined to think, this lady was the daughter of King Uti (Uttiya) her date can be fixed with some confidence to c. 207–197 BC or slightly later. The second inscription (No.1.21 [sf 8190]) tells much the same story epigraphically: the two letters read *tim(a or u)* and recall the text of No.1.1 (above).

Last of all comes Catalogue 4, No.1 (sf 166), from period B. This is stratigraphically the latest inscription of the series and it is so far removed from the date of its find-spot that we may disregard the possibility of error in this case. It must be related to disturbed material which was redeposited in the large-scale rebuilding which took place during the second half of the first millennium AD. We are therefore free to consider its script without concern for this aspect. We suggest below that the two related texts with their interesting minor dialectic variations represent a more North Indian character than do any of the other inscriptions we have been considering. The diagnostic traits for the date of the

inscription in our view point towards a date in the second to first centuries BC.

To conclude this section we wish to draw attention to one firm conclusion. Both in North India and in the Deccan there are marked changes in script which begin to be felt around the middle of the first century BC. These changes become more pronounced through the course of the first and second centuries AD. Karunaratne (1984) has made a broad classification of a body of Sri Lankan inscriptions, dividing them into groups which for one reason or another, partly historical and partly epigraphical, may be assigned to succeeding centuries, if his classification is accepted, and we see no reason why it should not be, even if there may be different views on some minor points or even on chronology, it would provide a useful yardstick against which to measure the dates of the latest of our Anuradhapura inscriptions. This exercise leads us to the conclusion that none of our inscriptions is likely to be later than the beginning of the Christian era. One may also make a similar critical comparison between our corpus and the inscriptions which Karunaratne assigns to the first century BC. The result is this exercise is extremely interesting and again fairly conclusive. Already during this century changes comparable to those taking place in India began to be felt in Sri Lanka. When we look at the nineteen inscriptions Karunaratne lists for this period, we observe that the situation is less clear cut than was the case for the first century AD. Certainly our Anuradhapura inscriptions offer no evidence of the appearance of serifs on letters nor of the general tendency towards overall squareness of some letters; nor do we find any evidence of the lengthening of the vertical strokes on initial *a* or on *ka*. In these terms none of our inscriptions show such 'new' features. The one change which Karunaratne associates with this century and which we do find on two of our inscriptions is the introduction of the dental *sa*. It is perhaps significant that one of these is on the stone mould inscription (Catalogue 4, No. 1 [sf 166]), where one version uses the genitive case ending *sa*, while the second version uses the local form of the Sri Lankan genitive case, *ha*. The second occurrence of the dental *sa* is on the 'early' inscription of Yahasiniyā (No.1.20 [sf 228A]), whose date has already caused us some difficulty. This might tempt one to believe that these two inscriptions belonged (epigraphically) to the first half of the first century BC. It is unlikely that they belong to a later date and they may, in spite of the presence of the dental *sa*, belong to the second century BC. Thus we venture to suggest that Karunaratne may be unduly cautious in his dating of the introduction of the dental *sa*. After all, this letter is already commonly found in the Asokan edicts throughout India and there can be no doubt that, in the interaction between Sri Lanka and North India in the wake of Mahinda's mission, many North Indian influences began to appear.

In the light of this discussion it is now possible to assign an epigraphical age to the two inscriptions which we have argued are stratigraphically 'out of place'. The first is No.1.20 (sf 228A) from period I8. There can be little doubt that epigraphically this inscription belongs to period H. The second is Catalogue 4, No. 1 (sf 166) from

period B: here too the likelihood is that epigraphically this belongs to period H, or at the latest to period G1–G2.

9.2.5 Evidence for the use of writing

The evidence presented by the discovery of inscriptions with single or two or more *akṣaras* suggests that the marking of pottery vessels begins in period J3, somewhat later than the inscribing of pots with other graffiti, which occurs first in K3. The great majority of the inscribed pots are made of one or other of the common, locally produced wares of the period. That is to say: black and red ware; red ware of both coarse and slipped varieties; and grey ware of both dull and fine grey varieties. The predominant forms of inscribed pottery in the black and red ware are small to medium-shallow bowls, used probably mainly for eating and drinking. In the red and grey wares the only inscribed forms recognizable are globular jars that were probably used for the storage of water. All the inscriptions are short and probably contained little more than personal names and titles. Often they are in the dative or genitive cases, implying that their use was to indicate the owners of particular vessels. This suggests that throughout the occupation of the site, from the first introduction of writing in period J3 through to period H, a similar usage prevailed.

In addition to the inscribed pots only two other examples were found: from period H comes the clay sealing (sf 10249) impressed with the name (Magaha), father's name (Tiśaputa) and title (*Purumaka*) of an official of the government. Unfortunately we do not know how this sealing found its way into one of the distinctive pits that were a feature of the site at that time, but the evidence clearly points to a quite different form of usage to that of the inscribed pots. Again, the stone jeweller's mould (sf 166) which had been redeposited in the disturbed materials of period B3, but which must originally have come from period H or the earlier phases of period G, points to a craft activity which fully comprehended the use of writing.

In terms of the number of inscribed potsherds found, we would expect that the practice of inscribing pottery declined fairly rapidly after the end of period H, or at least during the early part of period G. This probably indicates that during the first century BC writing on other materials became common and that the need for inscribing pottery diminished (see Chapter 10: Faunal Remains, section 10.3.1.18, for period G ivory and bone

plaques tentatively identified as manuscript covers). As we noticed above, the changes in script examined by Karunaratne become increasingly apparent during this and the following centuries. In northern India these changes first begin to show during the second half of the first century BC. Dani (1963: 542–53), we believe correctly, associated the changes in North India with the introduction of a new writing tool in the form of a reed pen and ink, perhaps under Indo-Greek influence. We agree that the underlying reason for the developments in script is probably to be sought in the introduction of new writing materials and tools, and in the changing method and status of writing itself.

9.2.6 The language of the Anuradhapura inscriptions

One final matter must be discussed regarding the inscriptions: what language or languages were they written in? The answer is very plain. From the first inscriptions in J4 onwards, the indications are that the language throughout is a form of Prakrit, doubtless of North Indian origin. This is not only apparent in the number of recognizable words or elements of words, for example *deva*, *piya*, *ti* (*tri*), but in the several texts which show what appear to be typical genitive or dative case endings, *aya*, *asa*, *aha*. There is moreover no trace of any Tamil words or elements and, with the single possible exception of one specifically Tamil letter from a very early context, there are none of the characteristic new letters employed in Tamil to represent the special phonetic requirements of Tamil. Even though the sample size is so small, the implications of this are sufficiently to warrant the conclusion that, from c. 400 BC onwards, writing was used at Anuradhapura for a form of Prakrit which was the direct ancestor of modern Sinhalese. For a more detailed discussion of archaeological models for linguistic development in the island, please see Coningham *et al.* 1996.

9.2.7 Catalogues 1–4

Throughout this and the following catalogues in this chapter, the first numeral in each entry signifies the catalogue number and the following number (or numbers) signifies the item referred to. For stratigraphic position please refer to Tables 9.2 and 9.4 and for line drawings to Table 9.3.

9.2.7.1 Catalogue 1: Inscriptions on potsherds

Serial No.	Special find	Context	(Period, phase)	Description of sherd
1.1	16472	729	(18, LIII)	Side of a black and red ware bowl. There are three <i>akṣaras</i> , all incomplete. They may be read as ... <i>ti mu la</i> (<i>lu</i>). The form of the letters is noticeably squat and squarish. In view of their truncated nature it is also possible to make other readings. [Plate 9.1]
1.2	16454	788 NE	(18, LIII)	Sherd of granular red-brown ware. There are three <i>akṣaras</i> , but the reading is not entirely clear. The first letter may be read as either <i>a</i> or <i>da</i> , the

				second is reasonably clear, but the third is incomplete and may be reconstructed as either <i>ne</i> or <i>na</i> . The reading may thus be either ... <i>a mā ne</i> ... or ... <i>da mā ne</i> . The meaning is not apparent. [Plate 9.1]
1.3	16195	698	(H, LXIV)	Rim fragment of black and red ware. There are two <i>akṣaras</i> , ... <i>ta ya</i> , presumably the end of a Prakrit word or name in the dative case, the beginning being missing. [Plate 9.2]
1.4	16742	961.NE	(14, XXX)	Rim fragment of black and grey ware. There are two <i>akṣaras</i> , ... <i>śa ya</i> , also presumably the ending of a Prakrit name in the dative case, the beginning being missing. [Plate 9.2]
1.5	16620	880	(15, XXXIII)	Rim of a black and red ware bowl. There are sections of the upper parts of what appear to have been five <i>akṣaras</i> . In the light of their incompleteness we are unable to offer any satisfactory reading.
1.6	16595	837.NE	(16, XXXV)	Rim of black and red ware. There is only one complete <i>akṣara</i> and part of another. The reading is ... <i>ba e</i> , or perhaps <i>da e</i> . We should note the possibility that this sherd may originally have been part of the lid for covering a bowl (as we infer to have been the case for serial no. 14 below). In that case the inscription may be read as <i>e ba</i> ... It may also be that this is a recent forgery (comparable to serial no. 11 below). [Plate 9.3]
1.7	16313	698	(H, LXIV)	Sherd of black and dull red-brown ware. There are two incomplete <i>akṣaras</i> whose reading is uncertain. The first is probably <i>ka</i> and the second <i>ma</i> . Together they read ... <i>ka ma</i> ... [Plate 9.3]
1.8	16194	698-	(H, LXIV)	Side of black and red ware bowl. There are traces of what appear to have been two <i>akṣaras</i> , but they are too indistinct to make them out possibly ... <i>la ya</i> . [Plate 9.4]
1.9	10517	977 SE.	(13, XXVIII)	Sherd of red and black ware. There are what appear to be two identical <i>akṣaras</i> , freshly scored into the surface of the sherd. They read ... <i>pa pa</i> [Plate 9.4]
1.10	17025	977 SW	(13, XXVIII)	Sherd of dull reddish, granular clay. There are three <i>akṣaras</i> lightly scratched on the surface of the sherd. They read <i>pu rā ya</i> , once again suggesting the dative case. This is the only instance of the corkscrew form of <i>ra</i> occurring in our inscriptions. [Plate 9.5]

I.11	17024	964 SW	(14, XXXII)	<p>Rim of black and red ware.</p> <p>There are three complete and one partial <i>akṣaras</i> deeply incised on the sherd. They give the impression of freshness, and this combined with other features leads us to conclude that they are a modern forgery. We shall not, therefore, attempt to read them. [Plate 9.5]</p>
I.12	17040	1101.SW	(12, XXVI)	<p>Body sherd of red slipped ware, probably part of a globular water pot.</p> <p>There are four <i>akṣaras</i>, incised lightly but firmly through the red slip. The reading is quite clear: ...<i>pi ya ga ta</i>... This combines two elements, <i>piya</i> (<i>priya</i>), as in Piyadasi, Piyatisa, and the second <i>gata</i>. However there is a small mark to the right of the letter <i>ga</i> which may be either accidental or intentional. In the second case the <i>akṣara</i> may be read as <i>gu</i>, giving the reading <i>guta</i>, probably the normal Sinhala Prakrit form of <i>gupta</i>. This suggests that the two words are part of a proper name. [Plate 9.6]</p>
I.13	17138	1125.SE	(11, XXIII)	<p>Rim of black and red ware bowl.</p> <p>There are only two <i>akṣaras</i> on the sherd and one of them is incomplete. The reading appears to be either ...<i>ya ta</i>... or ...<i>ya ru</i>... [Plate 9.6]</p>
I.14	17330	1125.SE	(11, XXIII)	<p>Side of black and red ware <i>thalī</i> bowl or – if inverted – the lower rim of a pottery cover for such a bowl.</p> <p>There are three <i>akṣaras</i>, apparently the opening of a word. If we attempt to read it as though on the side of a bowl, two of the three letters are strange and cannot be deciphered. If, on the other hand, it is read as inverted, as it would appear on a lid, the inscription can be read as <i>ja ta ka</i>, or more probably <i>ja ja ka</i>. No restoration is suggested. [Plate 9.7]</p>
I.15	17332	1175-	(J4, XVIII)	<p>Sherd of coarse red slipped ware.</p> <p>The inscription has three <i>akṣaras</i> and reads <i>de va sa</i>. This may therefore represent the Prakrit genitive case and be translated as 'of Deva', presumably referring to the pot or to its contents. The form of the first two letters is in line with the earliest forms found in Sri Lankan Brahmi, while the third letter is crudely and, we may suspect, inexpertly written. It is even possible that the final letter represents a crude form of dental <i>sa</i>, although this seems unlikely in view of the general absence of this letter in Sri Lankan inscriptions prior to the first century BC. The reason for this is not apparent, in view of the dental <i>sa</i> occurring frequently in Asokan inscriptions. [Plates 1.4 and 9.7]</p>
I.16	17308	1216-	(J4, XIX)	<p>Sherd of red slipped ware, from the shoulder of a water pot (?).</p> <p>The upper portions of three <i>akṣaras</i> are visible, but their reading is not straightforward. The first may be expected to read either <i>go</i> or <i>vo</i>, the second may tentatively be read as <i>de</i>, and the third as <i>na</i> or perhaps <i>va</i>, giving a reading of <i>go de na</i> or <i>go de va</i>. It may be</p>

				observed that this reading suggests an epigraphical age somewhat younger than the archaeological context would suggest. [Plate 9.8]
1.17	17420	1290.SE	(J4, XIX)	<p>Sherd of worn red slipped ware.</p> <p>This is a most problematic piece in view of its abraded surface and the indistinctness and ungainliness of the marks it bears. The relevant illustration is an eye-copy. There appear to be parts of three <i>akṣaras</i>: the first is represented by the tip of the vertical stroke and an attached vowel <i>mātra</i> ..a, without the preceding consonant; the second seems to be an ungainly <i>lā</i>; and the third the lower part of <i>ku</i>. The reading would therefore be ...a <i>lā ku</i>... [Plate 9.8]</p>
1.18	17425	1208.NE	(J5, XXI)	<p>Sherd of the wall of a black and red ware bowl.</p> <p>There are three <i>akṣaras</i>. The first is <i>ma</i>, the second <i>ta</i>, and the third may be a rare (but by no means unknown in Sri Lanka) occurrence of <i>na</i>, written on its side. It is also possible that this sign is an inexpertly written <i>pa</i> or <i>pu</i>, but the most convincing reading appears to be <i>ma ta na</i>... [Plate 9.9]</p>
1.19	25133	399	(G5, XCI)	<p>Part of the wall of a small rounded vessel of dull red ware.</p> <p>There are four <i>akṣaras</i> written with a fine point and in a neat, controlled hand. The reading is ...<i>ti śa biya</i>... the princess <i>Tiśa</i>. [Plate 9.9]</p>
1.20	228A	1172	(I1, XXII)	<p>Sherd from the wall of a large water pot in a dull grey ware with areas of striated beating marks on the outer surface. Below the inscription is a large umbrella symbol (see Catalogue 6, No.13.5).</p> <p>The inscription consists of six <i>akṣaras</i> and reads (<i>ya ha si ni yā</i>, 'the lady <i>Yahasiniyā</i>'). The fluency of the script points to a date in the third-second century BC rather than to the archaeological dating (see sections 9.4.1.1 and 9.4.1.2).</p>
1.21	8190	457SW	(G5, LXXXVI)	<p>Rim portion of a carinated dish in a black and red fabric which recalls Rouletted ware.</p> <p>The inscription coincides with a fresh break and is clearly incomplete. There are only two <i>akṣaras</i>, which read <i>śi</i> or <i>ti</i> and <i>ma</i>.</p>
1.22	139.A	1116	(I2, XXVII)	<p>Rim of black and grey ware.</p> <p>There are four <i>akṣaras</i>, lightly incised with a fine point. The first is indistinct and partly worn away and may be read as either <i>ha</i>, <i>sa</i> or <i>pa</i>. It may be the final letter of a now missing preceding word, in the genitive case. The third letter <i>sa</i> is apparently written in reversed form. The fourth letter is partly broken away and may be read as either <i>ha</i> or <i>pa</i>. We may read the text therefore as either ...<i>sa (ha) ...ka śa pa</i>..., or '... (?of) <i>Kasyapa</i>'.</p>
1.23	176A	698	(H, LXIV)	<p>Rim of fine grey ware with traces of a highly burnished surface.</p>

Two *akṣaras* are lightly scratched with a point. They read *ha ta...*

1.24	142A	1125	(I1, XXIII)	Rim of black and red ware.
				There are two <i>akṣaras</i> , evidently forming the final two letters of a group. They read <i>ta kâ</i> .
1.25	17095	977.NE	(I3, XXVIII)	Sherd of black and brown ware.
				Two <i>akṣaras</i> are visible and appear to read <i>ra vo</i> .
1.26	16348	707.NE	(H, LIV)	Sherd of black and brown ware.
				Two <i>akṣaras</i> are visible, reading ... <i>ba ja...</i>

9.2.7.2 Catalogue 2: Single (and some double) *akṣaras* on potsherds

For stratigraphic position please refer to Table 9.4 and for line drawings to Table 9.5.

Serial No.	Special find	Context	(Period, phase)	Description
2.1	15613	615-	(G2, LXVIII)	Sherd of ill-fired grey ware <i>e</i>
2.2	16503	728.NE	(H, LIV)	Shoulder of black and red pot <i>ka</i>
2.3	16396	744 NW	(I8, LXII)	Sherd of black and red ware <i>ka</i> [Plate 9.10]
2.4	16194	698-	(H, LXIV)	Sherd of red slipped ware <i>ka</i>
2.5	16589	880.NW	(I5, XXXIII)	Rim of black and red ware <i>gu</i>
2.6	15613	615-	(G2, LXVIII)	Sherd of black and red ware <i>ga</i>
2.7	16520	788.SE/NE	(I8, LIII)	Sherd of black and brown ware <i>ci</i> [Plate 9.10]
2.8	16428	698.NW	(H, LXIV)	Wall of bowl of black and red ware <i>to</i>
2.9	16326	698.NE	(H, LXIV)	Sherd of black and red ware <i>?</i>
2.10	16314	698	(H, LXIV)	Sherd of black and red ware <i>tu ga (?)</i>
2.11	16071	615.NW	(G2, LXVIII)	Rim of black and red ware <i>bu</i>
2.12	16529	714	(H, LIV)	Rim of black and red ware <i>ma</i>
2.13	16462	615	(G2, LXVIII)	Sherd of black and red ware <i>ma</i>

Anuradhapura: The Artefacts

2.14	16487	698.NE	(H, LXIV)	Sherd of black and red ware <i>ma</i>
2.15	16432	692.NE	(H, LXV)	Rim of small bowl of black and red ware <i>ma</i>
2.16	15603	601-	(G3, LXXII)	Rim of black and red ware <i>ma</i>
2.17	16176	697	(H, LXIV)	Sherd of black and red ware <i>ma</i>
2.18	16532	714	(18, LIV)	Sherd of black and red ware, water pot <i>śa</i>
2.19	17032	1101	(12, XXVI)	Sherd of black and brown ware <i>ga</i>
2.20	17050	1125.NE	(11, XXIII)	Sherd of black and brown ware <i>e</i>
2.21	17093	1174.NW	(J5, XX)	Sherd of black and red ware <i>ma</i>
2.22	17131	1125.NW	(11, XXIII)	Sherd of black and red bowl (? reversed <i>u</i>)
2.23	17134	1172.SW	(11, XXII)	Sherd of black and red ware <i>ma</i>
2.24	17136	1125.SE	(11, XXIII)	Rim of black and red ware <i>ma</i>
2.25	17148	1098.SE	(14, XXXI)	Sherd of red slipped ware <i>a</i>
2.26	17151	1125.NE	(11, XXIII)	Rim of red burnished ware <i>ha (hu)</i>
2.27	17152	1125.NE	(11, XXIII)	Rim of black and red ware <i>pa ra</i>
2.28	17156	1125.NE	(11, XXIII)	Rim of black and red ware <i>pa</i>
2.29	17236	1172.SE	(11, XXII)	Side of large pot of black and red ware <i>ke</i>
2.30	16623	880-	(15, XXXIII)	Sherd of pink-grey blotchy clay <i>ka</i>
2.31	10643	1125SW	(11, XXIII)	Shoulder of large pot of brownish fabric <i>ta</i>
2.32	17303	1206NE	(16, XXXVI)	Shoulder of pot of red slipped ware <i>e</i>
2.33	17311	1206-	(16, XXXVI)	Sherd of buff and black ware <i>ga</i>
2.34	17526	1399NE	(16, XXXVI)	Body sherd of coarse red slipped ware <i>ka</i>

2.35	17521	1382-	(J.3, XVII)	Sherd of black and red ware <i>ta</i>
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9.2.7.3 Catalogue 3: Other letter-like graffiti

For line drawings, please refer to Table 9.6.

Serial No.	Special find	Context	(Period, phase)	Description
3.1	16469	715.SE	(H, LXII)	Side of black and red ware bowl
3.2	1652	1729.NW	(18, LIII)	Sherd of red slipped ware
3.3	16364	698.NE	(H, LXIV)	Rim of black and red ware [Plate 9.11]
3.4	16489	720.NE	(H, LIII)	Rim of black and red ware
3.5	16475	729-	(18, LIII)	Sherd of red ware
3.6	16463	686 cut 687	(H, LXV)	Rim of small black and red ware jar
3.7	16405	787.SE	(17, XLIII)	Sherd of black and red ware
3.8	16394	767.NE	(18, LX)	Wall of black and red ware bowl
3.9	16430	715.SE	(H, LXII)	Rim of black and red ware bowl
3.10	16437	735.NE	(H, LXV)	Rim of black and red ware bowl
3.11	16446	729.SW	(18, LIII)	Sherd of black and red ware (the sign may be the letter <i>ra</i>)
3.12	16424	698.NW	(H, LXIV)	Rim of black and red ware
3.13	16444	789.SW	(18, LIII)	Wall of black and red ware jar
3.14	16168	615	(G2, LXVIII)	Rim of black and red ware bowl. (The inscription appears to read <i>ka mna</i> . Such a combination of letters is most unusual in early Sri Lankan epigraphs.) [Plate 9.11]
3.15	16149	615-	(G3, LXVIII)	Wall of black and red ware <i>thali</i>
3.16	16664	839	(G2, LXIV)	Sherd of black ware
3.17	16094	604-	(G2, LXXV)	Rim of black and red ware
3.18	16649	789.NW	(17, LIII)	Rim of black and red ware bowl
3.19	16077	615	(G2, LXVIII)	Part of the base of a black and red ware vessel
3.20	16184	635.NW	(G2, LXXIII)	Sherd of black and red ware
3.21	16315	698.NE	(H, LXIV)	Sherd of black and red ware
3.22	16093	604	(G2, LXXV)	Rim of black and red ware
3.23	16631	850.NE	(17, XL)	Sherd of black and red ware
3.24	16629	850.NE	(17, XL)	Rim of black and red ware
3.25	16626	831.NE	(17, XXXIV)	Sherd of black and red ware
3.26	10417	961.SE	(14, XXXI)	Side of heavy <i>thali</i> bowl of black and red ware
3.27	16448	729.SW	(18, LIII)	Sherd of red slipped ware
3.28	16383	726.NE	(H, LXIV)	Sherd of black and grey ware
3.29	16372	698	(H, LXIV)	Rim of black and red ware
3.30	16372	698	(H, LXIV)	Sherd of brown slipped ware
3.31	15616	621-	(G2, LXXIII)	Rim of black and red ware bowl
3.32	15614	615.NE	(G2, LXVIII)	Rim of black and red ware
3.33	15614	615.NE	(G2, LXVIII)	Sherd of black and red ware
3.34	17034	1101	(12, XXVI)	Shoulder of black and brown pot
3.35	17033	1101.NE	(12, XXVI)	Sherd of black and red ware
3.36	17164	1125.SW	(11, XXIII)	Sherd of black ware

9.2.7.4 Catalogue 4: Inscriptions other than on pottery

M.1 Special find 166
Context 26 (Period B3, phase CIV)
[Plate 9.12]

Already discussed earlier in Chapter 4 (section 4.6), the inscriptions are on both sides of an oblong stone goldsmith's mould measuring 32 x 8 x 8mm. On the first side there is a circular disc,

c. 19mm in diameter, with a trumpet-shaped opening at the top to allow the entry of the molten metal and a smaller exit hole to allow air to escape at the bottom. The outer edge is decorated with a ring of dots, recalling Graeco-Roman coinage. The field is shared with a Brahmi inscription and three auspicious signs: a *jayastambha* (sometimes referred to as an

Indradhvaja), which is either a victory pillar or an Indra banner, a *pūrnaghata* (full pot) and a *śrīvatsa*. Being a mould the inscription is naturally in reverse, but its reading is clear: *va ca da ta sa* – of, or belonging to, Vacadata (Vatsadatta).

The second side displays another, similar disc, c. 17mm in diameter, and is also surrounded by a ring of dots. The central motif is a lotus flower with embossed calyx and five petals, each bearing a single letter. This inscription reads *va ca ḍa ta ha* and has the same meaning as the previous one, while employing a slightly different form of the letter *ḍa* (incidentally here shown in reverse) and an alternative form of the genitive ending *ha*, in place of *sa*. In early Sinhala inscriptions three variant forms of genitive case occur: *śa*, *sa* and *ha*. In India one is accustomed to think of the first of these as typical of Sauraseni Prakrit and the second and third as indicative of Magadhi Prakrit. There is no reason to regard the variants here as anything extraordinary.

We may remark that the script of these two short texts is written in a neat and controlled style which in some respects seems nearer to the more formal hands of early North Indian inscriptions than to those of Sri Lanka. The piece comes from a mixed deposit assignable to the second half of the first millennium AD, when major architectural activities led to the wholesale destruction of the stratification of earlier deposits. We may thus confidently discount its archaeological date. In these circumstances one must turn to epigraphy for evidence of dating. It is difficult to suggest a firm epigraphical date, but our instinct, based mainly on North Indian parallels, points to one in the second century BC.

- 4.2 Special find 10249
Context 692 (Period H2, phase LXV)
[Plates 1.4 and 9.13]

9.3 Graffiti and symbols

9.3.1 Preliminary remarks

It has been suggested that signs or symbols as graffiti on pottery are expressions of an awareness of the need to indicate such things as ownership and often act as precursors of the emergence of a script (Coningham *et al.* 1996). This seems likely to have been the case on the Indo-Iranian borderlands during the fourth to third millennia BC. The recent Pakistani-American excavations at Harappa have shown that symbols appear in increasing quantities on pottery, probably for several centuries before the first appearance of the mature Harappan script. At the same time the date of the emergence of that script is being progressively more precisely established by a combination of careful excavation and radiocarbon dating. In the light of this development, one may wonder whether the appearance of painted graffiti on pottery in the Jorwe culture in the

This is a clay sealing with an impressed seal inscription on its front and cord impressions on its reverse side, indicating that the sealing had either been attached to some bundle of merchandise or perhaps was employed in sealing a storeroom door. The seal impression is in the form of a disc, c. 27mm in diameter, and like the previous moulds it has a ring of dots around the outer edge. The inscription reads

ti śa pu ta ma ga ha pu ru ma ka

and may be translated as 'Magaha the Purumaka, son of Tiśa'. We read the name as Magaha, but it is also possible to follow Paranavitana, who reads the same name at Mihintale as 'of Maga', treating the final letter as the genitive case ending *ha*. We assume that the name is a dialectic variation of Sanskrit Magha, Māgha. We shall discuss this inscription and the probable identification of Magaha Purumaka with a similarly named official in cave inscription No. 22 from Mihintale in the conclusion (section 9.4.1.1).

In contrast to the previous inscription, this one is in a more typically Sri Lankan Brahmi. The choice of the palatal *śa*, the choice of *ha* (if indeed this is the correct reading of *magaha*) to represent the genitive case and the form of *ma* are typical of this. Regarding the date of the inscription, the epigraphical indications broadly agree with the firm but somewhat imprecise radiocarbon date of its context, and we may confidently assign the piece to the late third or early second century BC. This thus coincides with the probable date of the Mihintale inscription (No. 22), as belonging to a group of inscribed caves associated with the reign of King Uti (or Uttiya), the successor of Devanampiya Tissa, who reigned around 200 BC, and with members of his family or entourage.

Deccan may not have been part of a similar process. The same is equally likely to have been the case with regard to the symbols found on the black and red pottery in settlements and graves of the succeeding Iron Age burial complex throughout much of peninsular India. These observations provide a background to the discovery of symbols or graffiti on potsherds from the excavations at ASW2.

The methods we have used for copying the symbols are broadly similar to those employed for the inscriptions and need not be repeated here. Our method of studying the symbols also follows broadly similar lines. However, there are some significant differences in the nature of the materials and in their interpretation, and this will be reflected in the text. Coming as they do from potsherds, many of the symbols are incomplete. In some cases a

given sign may occur sufficiently frequently to permit a confident reconstruction of missing elements. In our illustrations we have shown such reconstructed elements by dotted lines, reserving full lines to represent those actually visible on any particular specimen. There is also a marked tendency, particularly in the earlier periods of occupation, for the scratched graffiti to be of both a diffuse and a fragmentary kind, so that often not enough remains to give even a tentative indication of what the original motif may have been. In such cases, any attempt to recognize or reconstruct the symbol is impossible. A representative selection of these graffiti is listed in Tables 9.7 and 9.8.

There is a considerable body of literature from India reporting the occurrence of symbols on black and red pottery from a large number of sites. We are not aware of any comprehensive synthesis or comparative study of all this material, and thus any attempt to compare the typology with that of the ASW2 excavations will be necessarily incomplete. In the circumstances, we shall restrict ourselves to more detailed consideration of a small number of fairly well recorded bodies of data, while offering at the outset a few general observations on the age and distribution of what we propose to name the Peninsular Iron Age Symbol System (PIASS).

9.3.1.1 The Peninsular Iron Age Symbol System

The practice of marking pots with post-firing scratched graffiti is very widely distributed throughout peninsular India. Probably its antecedents may be traced in the Jorwe culture in Maharashtra (c. 1300–900 BC), where both painted and scratched graffiti occur (see, for example, Sali 1986: 397–9; Pal 1986: fig. 17). A small number of these graffiti are similar to examples found in the PIASS, but on the whole we consider that the majority of the symbols of the Jorwe complex form a separate group which is unlikely to have been the antecedent of the PIASS. As its name implies, the PIASS is particularly associated with the Peninsular Iron Age and with the Megalithic grave complex which it encapsulates. Unfortunately, in India relatively few grave sites have as yet been dated by absolute methods and the chronology remains somewhat vague. An important early settlement is Takalghat, near Nagpur in Maharashtra. Here radiocarbon dates indicate a period between 750–500 BC. There are black and red burnished ware pots and sherds with scratched graffiti, several of which belong to the repertoire of the PIASS (Deo 1970: 29, fig. 15 and pl. 5). Another early occurrence is at Nagal, opposite Bharukaccha on the Narmada River. This Iron Age settlement has also not been scientifically dated, but the assemblage suggests a date in the first quarter of the first millennium BC (JAR 1961–62). These sites may be taken as roughly defining the northern extension of the complex. North of this line no comparable sites producing symbols of the PIASS are in evidence, and the Ganges Valley in particular belongs to a separate Iron Age complex in which representatives of the PIASS are either rare or notably absent. South of this line the distribution can broadly speaking be defined in terms of

the large number of Iron Age (Megalithic) grave sites and settlements, and be extended into Sri Lanka. The chronological horizons of this extensive area of Iron Age sites cannot be accurately defined at this time but may be broadly seen as extending from the early first millennium BC through to the opening of the succeeding millennium.

We may now turn to the graffiti of ASW2 and thereafter to their place in the wider PIASS complex.

9.3.2 Stratigraphic occurrence of graffiti

Table 9.1 shows the relative stratigraphic position of the various symbols, arranged according to their types, beginning with period J3. As we noticed above, the oldest examples available for study date from periods J1 and J2, but none of these is sufficiently complete for identification of the original symbols of which they formed a part. We shall illustrate and discuss the earliest available evidence in section 9.3.4.1 below. Almost all we can say regarding this material is that it indicates the presence of both single and combined, straight and curved lines. After their early appearance in periods K3/J1 to J2, in the material we have studied, graffiti appear chronologically in parallel with post-firing scratched inscriptions in every phase of occupation from J3 and J4 through to G5. Again in parallel with inscriptions they tail off with remarkable alacrity thereafter, only three examples occurring in G5 and seven, almost certainly unstratified strays, in periods F–B inclusive.

In introducing the typology of the graffiti, we may recall that the symbol we have called the ‘Dominant’ sign, along with its variants and elements, occurs with fair regularity from period J3 through to G3. Other, less common symbols are very rare before period I1 and also more or less disappear after period G2. One other feature must be recalled: that the largely unidentifiable signs which we have classified as ‘miscellaneous’ appear to have represented a different style of scratched marks on pottery. Examples of this style occur particularly from period J1 through to I2 and more or less disappear thereafter. The significance of this feature will be discussed below in section 9.3.4.

9.3.3 Typology of the graffiti

Catalogue 5 (see section 9.3.6.1). For line drawings, please see Table 9.7.

The Dominant sign. The starting point for this discussion must be the cluster of apparently related types which, by reason of their frequency in the ASW2 excavations, we named the ‘Dominant’ sign. One may distinguish two principal and several minor varieties. The first, which we refer to as the ‘main type’, is represented by twelve examples listed in the catalogue (Nos 5.1.1–12). Each sign consists in essence of two elements: the lower element is a curved line, varying between a shallow open curve (Nos 5.1.1, 5.1.5) through to a narrower, deeper curve (Nos 5.1.8, 5.1.12). The extremities of the curve terminate in two- or three-fingered, ‘hand’-like features. In one instance (No. 5.1.3),

the curved element is replaced by two straight lines, approximately at right angles to one another.

In the principal variant (Nos 5.2.1–24) the lower element has no hand-like extremities, but consists of a generally narrower, deeper rounded curve, in one case having out-turned flanges at either end (No.5.2.1); this variant gives the impression of a pot, enclosing the second or upper element.

The upper element of the Dominant sign is common to both the main and second varieties, and consists of either a rounded or angular version of what looks like a Brahmi letter *ma*. The angular and rounded forms of *ma* are roughly divided in the ratio of 3:2. In the catalogue there are 21 rounded examples as against 13 angular. There are eight minor variants consisting of one or other of the main lower elements, combined with a number of quite different upper elements: a plain vertical line in three examples; a T-shaped vertical line; a pair of linked *ma* signs; and what appears to be a *triśūla*, or trident (Nos 5.3.1–8). This latter is suggestive in view of the almost universal association of this symbol with Siva.

With regard to the chronology of the Dominant sign and its variants, the main type occurs first in period J3, twice only in period I (I4 and I7), twice in period H and seven times in period G. The principal variant occurs twice in period J (first in J3), eleven times in period I, five times in period H and seven times in period G. The minor variants occur between period I5 and period G3.

We cannot proceed too far in speculating what may have been the significance of the Dominant sign and its variant forms. It is evident to us that it must have been inscribed on pots as an indication of ownership, just as we may speculate that writing names on pots is likely to indicate either their owner or user, or the destination of a gift. But how do we explain the presence of so many graffiti of the same type in a limited area of a settlement? One recalls that, in his excavations at Raigir, Hunt (1924: 140–56) discovered a grave containing some two dozen pots bearing a series of scratched marks, all closely related to each other. Somewhat similar evidence came from the excavations at Sanur in Chingleput District, Tamilnadu (Banerjee and Rajan 1959). In such cases individual ownership might be indicated; although, recalling the archaeological and ethnographic evidence for secondary and multiple burials in stone cist graves in South India, it is just as likely to have had an extended family or kin significance. Several researchers have noted that the same symbols occur on pottery in both graves and adjacent settlements, indicating that they are not the special province of either the dead or the living. A recent discovery comes from the excavations at Kodumanal in Coimbatore District, where Rajan reports the presence of both scratched graffiti and inscriptions in Tamil Brahmi. In four instances the pots carry both written names and graffiti (Rajan 1994: 121–22). What makes this discovery particularly exciting is that in two cases the inscribed pots include the words *kon* and *ko*, ‘king’, and that in one instance this word is followed by a sign which is very close to the principal variety of our Dominant sign. This leads us to speculate whether the Dominant sign too may have had a wider currency, indicative of a ruling group or family. As our site is

situated near to the centre of the settlement, there is every likelihood that it was in the vicinity of the royal palace.

Before leaving the Dominant sign we may briefly consider what, if anything, the two major elements signify (beyond their contextual significance). The lower element, as we saw, contains two varieties. The main type, with its bifurcating or trifurcating ends, might be regarded as a pair of outstretched arms or as the decorated horns of a bull; however, when the principal variety is considered, the deeply curved form appears to resemble more closely a rounded pot. The upper element, in almost all cases, resembles two of the main varieties of the sign used for the early Brahmi letter *ma*. This sign is often referred to in Indian contexts as a ‘taurine’, the horned head of a bull. It has been suggested that, where this sign has been found inscribed alongside Asokan inscriptions and in other such significant positions, it carries with it the significance of *mangala*, auspiciousness (Upasak 1960: 179), perhaps on account of its being the opening letter of the word, or for other reasons. In our view, a more likely interpretation of the symbolism is to read the sign as a full pot or auspicious pot (*pūrṇa-ghaṭa*, *mangala-kalāṣa*), that universal symbol of good fortune and auspices, enthroned upon a shallow dish, or set within another larger vessel.

Whatever the internal meaning of the Dominant sign may be, its contextual significance is strikingly suggestive. As we saw above, at Kodumanal a very closely related sign occurs on a broken pot which also carries the written information that it belonged to a Tamil, using ‘king’ (*ko*, *kṛṇ*) (Rajan 1994: 116–20). The implication is that at Kodumanal this sign was a symbol for the royal family or clan. Unfortunately the sherd in question is incomplete and the place where the name of the king (*kṛṇ*) is referred to is absent. There are, however, other inscriptions from Kodumanal which indicate that the site was associated with the royal Cheras, who also had relations with the Pandyas. We have already seen that there is inscriptional evidence linking the ASW area of the Anuradhapura Citadel with a number of ladies of the local ruling family. The implications of these apparent parallels are intriguing, and we shall touch on them again in the conclusion (see section 9.4.2.2).

Catalogue 6 (see section 9.3.6.2)

6.1 Svastika. The second most common type of sign includes *svastikas*. There are eleven examples in the catalogue (Nos 6.1.1–11). Of these, eight are right-handed and three are left-handed. A single variant of the former has curling ends. One example is shown standing in the middle of a horizontal line, flanked by small vertical strokes. We have referred to this symbol as *svastika* with railing. This seems to be a generally accepted usage. It may be compared with the similar motif of a railing or sacred enclosure to be found in section 6.13 below (Monumental forms). Here the railing is associated with a column or staff crowned by an umbrella. A further example from that section is the *svastika* on column with railing (6.13.1). This comes

from a late disturbed level in period D. In this case the svastika is left-handed.

The *svastika* or *swastika* is a very ancient symbol, already present in the Indus civilization in the third millennium BC. The wider Hindu, the Jaina and the more narrowly Buddhist significance of this symbol in early India is so well known as to need little comment. A useful summary of relevant evidence is given by Senadeera (1992: 154–7). Senadeera briefly mentions the existence of the right- and left-handed forms, but does not comment on their particular significance, if any. (See further discussion below in section 9.3.4.)

6.2 Star. There are three examples of star signs in the catalogue. Of them two are single stars and one is double (Nos 6.2.1–3).

6.3 Snake. There are two examples of snakes: one is a complete figure and the other part only (Nos 6.3.1–2). The head of the former is shown by three dividing lines, reminiscent of the hand-like end of the Dominant sign. It is not apparent whether the incomplete example is actually part of a snake or simply a wavy line. The latter is a fairly frequent symbol on black and red ware from a South Indian context (see Lal 1962: symbol 23).

6.4 Plant. We have, rather arbitrarily, identified three branching examples as plants (Nos 6.4.1–3). A number of plant-like symbols are noted by Lal (1962: symbol 31), but in all cases there must be some doubt regarding the nature of the object represented.

6.5 Arrow. We have, again somewhat arbitrarily, identified six signs as 'arrows' (Nos 6.5.1–6). It may be that we should rather read them as spears, or even perhaps human forms. Particular interest attaches to No. 6.5.6, which stands beside a unique sign (in these collections), in that it was chosen as one of the peculiarly Tamil letters *ṇa* adapted to the Brahmi script.

6.6 Bow and arrow. Less doubt attends the five examples of bows; three are vertical and two are shown horizontally (Nos 6.6.1–5). While the presence of the arrow seems definitely to establish the bow's identity, the two remaining examples are identified because of their similarity to the other examples.

6.7 Balance (or human form). There is a single example (No. 6.7.1), which at first sight suggests a standing figure with outstretched arms. On further consideration it appears that this may be one of the variant forms of a balance or weighing device, as shown in the following section.

6.8 Balance. Two forms (Nos 6.8.1–2) appear to be balances.

6.9 Yantra. We have identified six signs (Nos 6.9.1–6) as *yantras*, mystical diagrams, although this name is, strictly speaking, anachronistic. The common element is that each has an oblong enclosure divided down the middle by a vertical line or pole, on top of which is a plain horizontal line, perhaps an umbrella. Its meaning

must remain obscure. In one example (No. 6.9.1), the reconstructed original appears to be a square ground, crossed by two lines at right angles to each other, and each with a flat line across its extremities. It is this example which calls to mind the *Śrī Chakra Yantra* of later times (a stylized geometric representation of both the universe and the mother goddess).

6.10 House. There are two examples of a small hut-shaped structure (Nos 6.10.1 and 6.10.2).

6.11 Triangular forms and ladder (Nos 6.11.1–3). Two of these strange signs appear to be elongated triangles, one with horizontal steps and the other with a filling of radial vertical lines. Their real significance is unclear, but in the light of comparative examples from Tamilnadu and Karnataka the presence of a horizontal line at the apex of the triangle seems to have some significance. The third sign in this group appears to be a plain ladder with two vertical poles and horizontal steps. Lal (1962) includes several variants of these forms under his symbols 15 and 49. (See discussion below in section 9.3.5.)

6.12 Square forms (Nos 6.12.1–14). This category includes several variants: Nos 6.12.1, 4 and 13 are simple squares; Nos 6.12.8, 9, 11 and 12 are squares divided into four quarters; the others are various part squares (Nos 6.12.5, 6, 14), one with a rounded end (No. 6.12.3) and one with a curious tilted line above the square (No. 6.12.10).

6.13 Monumental forms (Nos 6.13.1–5). Of these signs, No. 6.13.1 is actually misplaced. It has already been mentioned in the above discussion on the *svastika* and might better be treated together with the *svastika* with railing, No. 6.1.11. Numbers 6.13.2, 3 and 4 are pillars surmounted by umbrellas and with surrounding railings, hence we have referred to them as monumental. In this context one would expect these signs to be associated with sacred enclosed spaces, most probably Buddhist *caityas*. A final incomplete example comes from a large water pot and carries an umbrella only, the lower part being missing.

It may be remarked that, while No. 6.13.1 comes from an obviously 'late' context, its style is distinctly different from the remainder, and it may well be somewhat later in date. On either side of the *svastika*-bearing pillar are two small signs which we read as the Brahmi letter *ma* and a circle, probably a sun sign. It is also reasonably certain that Nos 6.13.2–4 are relatively earlier; but whether they can be as early as the stratigraphic date (the opening phase of period I) is less clear, if we are to read them as Buddhist. We may recall that before the mission of Mahinda there were almost certainly representatives of other religious groups already in the island, and probably also Buddhists. The iconographic symbol of the *svastika* on pillar is not exclusively Buddhist: it can also be Jaina or of some other sect whose sacred spot it represents.

6.14 Boat. These three examples (Nos 6.14.1–3) are of very different character. Number 6.14.2 is a large

subject, occupying a major part of the side of a bowl of finely levigated grey clay. The ship has a mast supported by stays and two steering oars at the stern (see Plate 9.19 and Fig. 6.1). Number 6.14.1 is incomplete but is evidently an inshore water craft, without mast or sail. The third example appears to represent a small masted ship, but the detail is much less convincing than in the preceding example.

9.3.4 Stylistic tendencies

Looking at the graffiti from an art-historical viewpoint, we may detect some evidence of a certain developmental sequence. It is also possible to divide the material into a number of 'styles' or 'tendencies'. These tendencies are certainly not absolute or capable of complete distinction from one another, as they often run concurrently and even merge into each other. But it is evident that the first represents a majority of the oldest graffiti from the excavation, while the second belongs essentially to the early urban phase at Anuradhapura, and the third represents a more specifically Buddhist tendency and is somewhat later in inception. Our view is that the three distinct stylistic tendencies encapsulate, as it were, evidence of cultural developments taking place during the occupation of the site.

9.3.4.1 The 'early' style

The earliest graffiti are those which we have mainly classified as 'miscellaneous' and which we propose to describe as belonging to the 'early' style. In this style the designs are usually of large size so that only small parts of them survive on our sherds, and in many cases it is virtually impossible to determine what the original, complete design may have been. The motifs give the impression of being drawn loosely and in a curiously rambling fashion. Graffiti of this style occur at least from the beginning of period J and continue, alongside the other styles, down to period G. In Figure 9.36 we have put together a group of sixteen of the earliest occurrences of sherds decorated in the early style: three come from the interface of periods K5 and J1; one from J1 itself; three more from the interface of J1 and J2; and eight from J2. These therefore are the extent of the evidence available for recognizing the nature of the early style of graffiti in ASW2. Along with other examples from Catalogues 5 and 6, these present a vague but consistent picture. From periods J3, J4 and J5 there are a very few early examples of the types found in the 'urban' style (see below). Principal among these are several examples of the Dominant sign (for example Catalogue 5, Nos 1.12, 2.19 and 2.23, etc.). From this period we have recognized only one other type – the arrow – and the characteristic types of the urban style are absent. Thus the early style constitutes the earliest post-firing scratched additions to pottery in the excavation, and we believe that this may be regarded as forming the basic style, from which in the course of time the second and third styles differentiated themselves. We shall discuss the external affinities of the early style below. Other examples are to be found in Catalogues 5 and 6 (see section 9.3.6).

9.3.4.2 The 'urban' style

A second group of graffiti involves mainly smaller, more compactly drawn symbols, of which many complete examples survive. In this group one may speak of 'types', because recognizable types recur numbers of times. We have named the style 'urban', having consideration to the wide variety of symbols and to the distinctive clarity of their representation. The urban style emerges during period I and reaches its climax in periods H and G. It may be contrasted with the less coherent styles of graffiti associated with the black and red ware found in Megalithic grave sites throughout southern India (see section 9.3.5). For whatever reason the graffiti in the Megalithic grave assemblages are generally more restricted in range of types and are frequently executed in a curiously rambling manner. They are, one may suggest, closer to our early style than to the types of the urban style. One reason for this contrast may be that, within a single grave, the types represented are likely to be associated with an individual kin group. Therefore they are unlikely to represent a wider population such as might be expected in an urban settlement context. Such an urban context moreover is likely to require greater clarity of the family marks than would a grave site. Within our typology, the numerically dominant position of the Dominant sign stands out. This suggests that in the limited area of our excavation a single extended family or clan group may have been in occupation. We shall return to this sign in section 9.3.5 below and again in the conclusion (section 9.4.2). Illustrations of most of the graffiti are given in Catalogues 5 and 6.

9.3.4.3 The 'hieratic' style

A third group of symbols may be treated separately from those of the urban style, although they are intimately linked. These we have called the 'hieratic' style. They are distinguished by the fact that they mainly consist of symbolic formulae for representing holy places, particularly Buddhist holy places, and that many, if not all, coincide with symbols that are included by Paranavitana in his list of 'non-Brahmi signs' (1970: xxvi). They therefore have a special significance in that they occur not only on our pottery but also as adjuncts to dedicatory inscriptions from caves associated with the early Buddhist *Sangha*. The main series of these symbols are the pillars with railing, some surmounted with umbrellas, some with *svastikas*. The separate *svastikas* are another group, which may be accepted as 'hieratic'. In view of the very wide and ancient distribution of this symbol. Two other symbols may also be regarded as doubtfully 'hieratic': these are the *trishūla*, or trident, present in a single variant of the Dominant sign, No. 5.3.5 of period 18, and another among the elements of the sign, No. 5.4.14 from period 17. Another possibly hieratic symbol is the pillar surmounted by the *mangala* symbol, No. 6.15.1 of period H. The other examples are all included in Catalogue 6 below.

9.3.5 Comparative evidence from other sites
As we remarked above, there is a great deal of related material from sites throughout peninsular India and Sri Lanka, mainly in the form of post-firing graffiti scratched

on black and red ware belonging to the Early Iron Age and Early Historic periods. This body of data is widely scattered through the available literature but has not to date, as far as we are aware, been brought together as a systematic and comprehensive corpus. The need for a corpus is apparent. In the absence of such data, it is evident that this is not the place to attempt a thorough comparative study of our materials. Instead we shall consider the evidence provided by a number of carefully selected sites.

The sites we have chosen for this purpose are: first, in Sri Lanka, the excavations in the Gedige area of the Citadel at Anuradhapura, directed by Dr Siran Deraniyagala in 1969 (Deraniyagala 1972). These were important, among other things, because they led to the first clear publication of early Brahmi scratched inscriptions and graffiti on pottery from a properly stratified excavation. The second body of comparative data is the short list of 'non-Brahmi symbols' recorded by Paranavitana in the course of collecting and publishing the monumental corpus of 1,234 early Brahmi inscriptions from caves in Sri Lanka. These are important because in some cases the caves provide a historical, or partially historical, context for the symbols.

We have chosen three other sources from peninsular India, one drawn mainly from sites in Tamilnadu, one from Mysore and one from Coimbatore District. The first of these is B.B. Lal's original study, 'From the Megalithic to the Harappan' (1962). In this Lal noted that a number of symbols occurring on the Megalithic pottery could claim their ancestry in the Indus civilization and that some of them were also present in the Neolithic-Chalcolithic sites of the Deccan. He made a useful list of 61 symbols in the course of his study. The second source is Seshadri's report on excavations at T. Narasipur, Mysore (1971). Here a settlement covering three periods, Neolithic, Transitional and Megalithic, was excavated, along with a number of graves belonging to the latter period. Seshadri reports that at this site the graffiti are found only in the Megalithic period, where they occur in both the settlement and in graves. The final source is Rajan's excavations at Kodumanal in the Coimbatore District, Madras (1994). This site is as yet only partly published and further excavations are expected. Its importance is that it provides not only corroborative evidence to that of T. Narasipur but also important data on the adaptation of the Brahmi script for writing Tamil, along with evidence associating the site with the Cera dynasty, whose archaeology has hitherto been almost nil.

In our comparative study we shall briefly discuss the evidence from each of our sources and seek to understand their broad significance in relation to those from ASW2 (see Table 9.8). In this study we shall compare each source with the 21 major types identified in our excavations. We shall return to this subject briefly in the conclusion.

9.3.5.1 Gedige, Anuradhapura

The first, and most obvious, place to compare with ASW2 is the excavation at the Gedige site. The comparison is very convincing, in spite of there being some differences. The main type of the Dominant sign is

not present, although there is a good representative of the principal variant, and there are several occurrences of elements of the sign. There is an example of one left-handed *svastika* and what appears to be an incomplete *svastika* with railing. In all there are nine common types, plus three probable correspondences (marked in Table 9.8 with a question mark). Perhaps the most striking difference between the two series is the absence of the Dominant sign. This may have significance in terms of its probable association with a clan or family and of their presence in one part of Anuradhapura and absence in another part. Otherwise, the Gedige symbols show predominantly similar signs to those of our urban style, with one or two examples of the hieratic.

9.3.5.2 Paranavitana's non-Brahmi signs

The second source for comparison is Paranavitana's list of non-Brahmi symbols. This is particularly valuable since all the inscriptions he lists relate to cave complexes associated with the Buddhist *Sangha*, and the non-Brahmi signs occur in association with inscriptions, usually at the beginning or end. For this reason it may be fairly confidently assumed that the whole range has a *terminus ante quem*, in that none is likely to be earlier than Mahinda's mission to Sri Lanka in c. 250 BC. The Dominant sign is absent; the *svastika* is present, and so are several variants of *svastika* with pillar and railing, and one of what we have called a 'monumental form', the pillar with umbrella and railing. There are also several variants of the Brahmi *ma* sign. One other significant sign is a masted ship. Altogether the types from this source seem to point towards a Buddhist, or at least hieratic, association. In all there are five comparisons and one probable comparison between these signs and our 21 types.

9.3.5.3 B.B. Lal's list

The third source is Lal's list of symbols occurring on Megalithic pottery from mainland South India, mainly from Tamilnadu and Karnataka (Lal 1962). Here the situation is very different, in that no less than ten comparisons and three probable comparisons with our types are included. The comparisons are interesting, as too are the absent elements. The Dominant sign is absent and so is its principal variety. The Brahmi letter *ma* occurs in its angular form (Lal's symbol 51), as do other symbols resembling Brahmi letters, *ga* and *ta* (Lal's symbols 1 and 2). This is perhaps related to the early occurrence of these letters in our series, appearing in our period J3. The *svastika* occurs both in its left-handed version and in the curling variety of the right-handed (Lal's symbol 18, Nos 1-6). The star sign occurs (Lal's symbol 16); so too does the wavy line, but not in the related form of the snake (Lal's symbol 25); our plant form is represented by Lal's symbols 41 and 42. The distinct but related signs of the arrow or arrowhead and the bow, both with and without arrow, are represented by Lal's symbols 5 and 32. Our balance and ?balance/?human form symbols are apparently represented among Lal's Megalithic symbols by his symbol 13; the symbols we described as *yantras* are not represented, nor is our house symbol (but compare Lal's

symbol 44). Our triangle symbol is absent from Lal's list, although his symbol 49 approaches it; the ladder is represented there (Lal's symbol 15). Our various square forms are not all represented, but some at least are (Lal's symbols 12 and 40). Significantly, neither the *svastika* nor the umbrella on pillar with railing are represented in Lal's list; nor is there any boat.

9.3.5.4 T. Narasipur

The signs present in Seshadri's T. Narasipur excavations are on the whole very roughly drawn and many appear to be variants of a small number of basic designs. They constitute an extreme example of the 'rambling' style of representation that we believe characterized our early style. Some of the symbols are close to types from Lal's list. If we compare them with our Anuradhapura series there are only a small number of related types. Our Dominant sign in its varieties is absent. There are no *svastikas*, nor any of our monumental types. The star, the

wavy line, the bow and arrow, and many variants of the triangles or ladder-like sign occur. Only 5 of our 21 types can be recognized.

9.3.5.5 Kodumanal

This site provides an interesting contrast to our other sources. The Dominant sign is present in its principal variant form, generally with an angular *ma* inside a pot form. It also occurs inside a square frame. Both right- and left-handed *svastikas* occur. So too do the star, the bow and arrow, the ladder and variants of our triangle form, square forms and the trident. As we mentioned above, the symbols are found on pots, some bearing inscriptions in Tamil Brahmi. In particular, the Dominant sign occurs alongside an inscription *kon*, king. In all, 11 of our 21 signs occur here. The character and style of the Kodumanal graffiti are also highly suggestive of a different aspect of the rambling character of our early style.

9.3.6 Catalogues 5 and 6

9.3.6.1 Catalogue 5: Graffiti and symbols on potsherds: the Dominant sign

Serial. No.	Special find	Context	(Period, phase)	Description of sherd
<i>1. Main type</i>				
1.1	16674	615NW	(G.2, LXVIII)	Side of black and red <i>thali</i>
1.2	16674	615NW	(G.2, LXVIII)	Base of same vessel
1.3	16429	692NE	(H, LXV)	Side of a vessel of black and red ware
1.4	16064	615NW	(G.2, LXVIII)	Rim of a vessel of black and red ware
1.5	15791	692NE	(H, LXV)	Base of small jar of black and red ware
1.6	16153	670NW/SW	(G.2, LXIV)	Wall of black and red <i>thali</i>
1.7	16653	834-	(I.7, XXXVII)	Rim of black and red ware
1.8	16152	670 NW/SW	(G.2, LXIV)	Rim of red slipped ware
1.9	15613	615-	(G.2, LXVIII)	Sherd of water pot of gritty fabric
1.10	16150	615-	(G.2, LXVIII)	Rim of black and brown ware
1.11	17054	962NW	(I.4, XXX)	Sherd of gritty buff ware
1.12	17495	1381SW	(J.3, XVII)	Body sherd of black and red ware
<i>2. Principal variant</i>				
2.1	16397	729NW	(H, LIII)	Sherd of water pot of deep red and black ware
2.2	16147	615NW	(G.2, LXVIII)	Rim and side of red bowl
2.3	16191	635NW	(G.2, LXXIII)	Side of black and red <i>thali</i>
2.4	16174	697-	(H, LXIV)	Sherd of red-brown ware
2.5	16162	615NE	(G.2, LXVIII)	Sherd of large vessel in red slipped ware
2.6	16346	767NE	(I.8, LX)	Sherd with grey-brown surface [Plate 9.14]
2.7	16197	663	(G.1, LXVI)	Side of black and red <i>thali</i>
2.8	16640	791NW	(I.7, XLVII)	Sherd of black and red ware
2.9	16666	837SE	(I.6, XXXV)	Sherd of red slipped ware
2.10	16477	729-	(I.8, LIII)	Sherd of black and brown ware
2.11	16460	714SE	(H, LIV)	Wall of black and red ware
2.12	16506	729-	(I.8, LIII)	Sherd of black and red water pot
2.13	16375	715SE	(H, LXII)	Sherd of black and brown burnished ware
2.14	15201	602NW	(G.3, LXXII)	Sherd of black and red ware
2.15	16464	659NE	(G.2, LXXII)	Rim of black and red ware
2.16	16442	789SW	(I.8, LIII)	Sherd of red slipped ware
2.17	16923	961SE	(I.4, XXX)	Rim of black and red ware bowl
2.18	16422	715SE/NE	(H, LXII)	Side of black and red <i>thali</i> bowl

Inscriptions and Graffiti

2.19	17422	1216SW	(J.4, XIX)	Rim of black and red ware
2.20	17023	977NE	(I.3, XXVII)	Sherd of black and red ware
2.21	17038	977SE	(I.3, XXVII)	Rim of black and red ware
2.22	17246	1125SW	(I.1, XXIII)	Rim of black and red ware
2.23	17519	1382	(J.3, XVII)	Carinated body sherd of black and red ware
2.24	17243	1119SW	(I.3, XXIX)	Sherd of dull black and red ware

3. Other variants of the Dominant Sign

3.1	16060	605NW	(G.2, LXXXIII)	Sherd of black and red ware
3.2	16637	837NW	(I.6, XXXV)	Rim of black and red ware
3.3	16427	698NW	(H, LXIV)	Wall of black and red ware bowl [Plate 9.14]
3.4	16436	790NW	(I.7, XLVII)	Wall of black and red ware bowl
3.5	16385	767SE	(I.8, LX)	Sherd of black and red ware
3.6	16592	880NW	(I.5, XXXIII)	Sherd of black and red ware
3.7	16441	789SW	(I.8, LIII)	Sherd of black and red ware
3.8	15202	602NW	(G.3, LXXII)	Sherd of red slipped ware

4. Elements of the Dominant sign: 1. Hands

4.1	16652	860NE	(J.6, XXXVI)	Sherd of coarse grey-brown ware
4.2	15607	605NE	(G.2, LXXXIII)	Sherd of black and brown ware
4.3	16062	615-	(G.2, LXVIII)	Rim of black and red <i>thali</i> bowl
4.4	16241	701NE	(H, LXIV)	Sherd of black-grey gritty ware
4.5	16590	831SE	(J.7, XXXIX)	Sherd of black and red ware
4.6	16142	632NW	(G.2, LXXXIII)	Sherd of black burnished ware
4.7	16657	831NE	(I.7, XXXIX)	Rim of black and red ware
4.8	16329	648NE	(G.2, LXIX)	Sherd of coarse black-brown fabric
4.9	16418	698NE/NW	(H, LXIV)	Sherd of black and red ware
4.10	16325	698NE	(H, LXIV)	Sherd of black and red ware
4.11	16377	726NE	(H, LXIV)	Wall of black and red <i>thali</i>
4.12	16066	601NW/SW/SE	(G.3, LXXII)	Sherd of red slipped water pot
4.13	16639	791NW	(I.7, XLVII)	Sherd of red slipped ware
4.14	16651	850NE	(I.7, XL)	Sherd of black and red ware
4.15	16628	837NE	(I.6, XXXV)	Rim of small black and red ware jar
4.16	16317	698NE	(H, LXIV)	Sherd of black and red ware
4.17	16196	663-	(G.1, LXVI)	Sherd of black and red ware
4.18	16926	977NE	(I.3, XXVII)	On base of heavy black and grey <i>thali</i> bowl
4.19	16592	961NE/SE	(I.4, XXX)	Sherd of red slipped ware
4.20	16481	714SE	(H, LIV)	Sherd of water pot of red slipped ware
4.21	17522	1382	(J.3, XVII)	Body sherd of large coarse ware vessel, with exterior red slip
4.22	17529	1293NE	(J.3, XVI)	Rim of black and red <i>thali</i>
4.23	17162	1125SW	(I.1, XXIII)	Rim of black and red ware
4.24	17165	1125SW	(I.1, XXIII)	Sherd of red slipped ware

4. Elements of the Dominant sign: 2. Mangala-kalasa (auspicious urn)

4.25	16081	604-	(G.2, LXXV)	Sherd of gritty red slipped ware
4.26	16482	701NE	(I.8, LXIV)	Rim of black and red ware
4.27	16439	692-	(H, LXV)	Side of black and brown ware
4.28	16596	831-	(I.7, XXXIX)	Sherd of black and red ware
4.29	17020	1119SW	(I.3, XXIX)	Sherd of black and red ware
4.30	17049	1101SE	(I.2, XXVI)	Sherd of red slipped ware
4.31	17137	1125SE	(I.1, XXIII)	Rim and neck of black and brown ware bowl
4.32	17157	1125SE	(I.1, XXIII)	Rim of gritty red ware
4.33	17314	1216-	(J.4, XIX)	Sherd of black and brown ware

9.3.6.2 Catalogue 6: Graffiti and symbols on potsherds: other signs

For line drawings, please refer to Table 9.8.

Serial No	Special find	Context	(Period, phase)	Description of sherd
1. a) Svastika				
1.1	16635	837SW	(I.6, XXXV)	Rim of black ware
1.2	16367	670	(G.2, LXIV)	Sherd of black and red ware
1.3	15787	604	(G.2, LXXV)	Sherd of black and red ware
1.4	15792	698NE	(H, LXIV)	Side of black and red bowl
1.5	16588	791-	(I.7, XLVII)	Rim and black and red ware
1.6	15792	698NE	(H, LXIV)	Side of a black and red <i>thali</i> (perhaps the same vessel as 1.4 above)
1.7	10476	977NE	(I.3, XXVIII)	Rim of gritty black and brown ware [Plate 9.15]
1.8	16504	728NE	(H, LIV)	Rim of black and red ware bowl
1.9	15616	621-	(G.2, LXXIII)	Rim of black and red ware
1.10	17150	101SW	(I.4, XXXI)	Rim of gritty red ware
1. b) Svastika with railing				
1.11	16185	635NW	(G.2, LXXIII)	Rim of black and red ware bowl
2. Star				
2.1	16738	962NW	(I.4, XXX)	Sherd of coarse black and red ware
2.2	15784	682NE	(G.1, LXVII)	Sherd of red slipped ware
2.3	16661	837SE	(I.6, XXXV)	Sherd of red slipped ware
3. Snake				
3.1	16156	635-	(G.2, LXXIII)	Sherd of large vessel of red slipped ware [Plate 9.15]
3.2	17149	1098SE	(I.4, XXXI)	Sherd of black and red ware
4. Plant				
4.1	15790	698NE	(H, LXIV)	Side of black and red <i>thali</i>
4.2	16648	837NW	(I.6, XXXV)	Sherd of black and red ware
4.3	16084	615NW	(G.2, LXVIII)	Sherd of brownish ware
5. Arrow				
5.1	16088	615NW	(G.2, LXVIII)	Wall of black and red <i>thali</i> bowl
5.2	10168	635NW	(G.2, LXXIII)	Shoulder of dark brown water pot
5.3	16437	715SE/NE	(H, LXII)	Carinated side of black and red vessel
5.4	15604	601-	(G.3, LXXII)	Sherd of black and red ware
5.5	17528	1293NE	(J.3, XVI)	Body sherd of gritty red ware
5.6	17530	1476NE/SE	(J.3, XVII)	Rim of black and red ware
6. Bow and arrow				
6.1	16928	977NE	(I.3, XXVIII)	Sherd of black and grey ware
6.2	16927	977NE	(I.3, XXVIII)	Rim of black and grey ware (perhaps the same vessel as above)
6.3	17018	1119SW	(I.3, XXIX)	Rim of black and brown ware
6.4	16144	638NW	(G.2, LXXIII)	Rim of black and red ware [Plate 9.16]
6.5	17048	1101SE	(I.2, XXVI)	Rim of bowl of red ware

Inscriptions and Graffiti

7. Balance (or human form)

7.1	16443	789SW	(I.8, LIII)	Sherd of black and red ware [Plate 9.16]
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8. Balance

8.1	16056	729	(I.8, LIII)	Side of black and red <i>thali</i>
8.2	15614	615NE	(G.2, LXVIII)	Sherd of black and red ware

9. Yantra

9.1	16456	788NE/SE	(I.8, LIII)	Side of black and red <i>thali</i> bowl [Plate 9.17]
9.2	16527	714	(I.8, LIV)	Rim of black and red ware
9.3	16239	632NE	(G.2, LXXXIII)	On outside of base of black and red <i>thali</i> bowl
9.4	15793	698NE	(H, LXIV)	Sherd of black and red ware
9.5	15623	615	(G.2, LXVIII)	Side of coarse black and red ware bowl
9.6	17297	1125SE	(I.1, XXIII)	Rim of black and red ware

10. House

10.1	16145	615	(G.2, LXVIII)	Sherd of black and grey ware
10.2	17531	1407	(J2, XIV)	Terracotta cone [Plate 9.17]

11. a) Triangular forms, b) Ladder

11.1	16449	729SW	(I.8, LIII)	Sherd of black and red ware
11.2	16369	670-	(G.2, LXIV)	Part of heavy jar of black and red ware
11.3	17018	1119SW	(I.3, XXIX)	Beside bow and arrow on 6.3 above

12. Square forms

2.1	16097	615	(G.2, LXVIII)	Sherd of red slipped ware
2.2	16642	791NW	(I.7, XLVII)	Rim of black ware
2.3	16636	837SW	(I.6, XXXV)	Sherd of gritty brown ware
2.4	15613	615	(G.2, LXVIII)	Sherd of black and red ware
2.5	16593	880 NW	(I.5, XXXIII)	Sherd of red slipped ware
2.6	16488	698NE	(H, LXIV)	Sherd of dull red ware
2.7	16483	698NE	(H, LXIV)	Sherd of red slipped ware
2.8	10413	961SW	(I.4, XXX)	Rim of heavy <i>thali</i> bowl in black and red ware [Plate 9.18]
2.9	15613	615	(G.2, LXVIII)	Sherd of buff-brown ware
2.10	16154	635-	(G.2, LXXIII)	Sherd of black-grey ware
2.11	17240	1119SW	(I.3, XXIX)	Rim of black and red <i>thali</i> bowl
2.12	17153	1125NE	(I.1, XXIII)	Rim of black and brown ware pot
2.13	17239	1119SW	(I.3, XXIX)	Sherd of black and brown ware
2.14	17238	1172SE	(I.1, XXII)	Sherd of black and brown ware

13. Monumental forms

3.1	2155	301	(D, XCV)	Thick sherd of red ware with grey interior; the edges have been ground and rounded; the subject is engraved on the inner surface [Plate 9.18]
3.2	17141	1125SE	(I.1, XXIII)	Belly of a black and red bowl [Plate 9.19]
3.3	17160	1125SE	(I.1, XXIII)	Belly sherd of black and red bowl
3.4	17167	1206NE	(I.6, XXXVI)	Rim and body of large pot of red slipped ware

Anuradhapura: The Artefacts

13.5	228A	1172	(I.1, XXII)	Wall of water pot of dull grey ware (see 9.2.6.1, Inscription No. 1.20)
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14. Boat

14.1	17232	1125NE	(I.1, XXIII)	Rim of red and brown bowl
14.2	10548	977NW	(I.3, XXVII)	Bowl of finely levigated grey clay [Plate 9.19]
14.3	17133	1125NW	(I.1, XXIII)	Side of black and red ware bowl

15. Miscellaneous and unidentified

15.1	16434	739-	(H, LXIII)	Sherd of gritty brown ware
15.2	17037	1101SE	(I.2, XXVI)	Rim of black and red ware jar
15.3	17132	1125NW	(I.1, XXIII)	Sherd of beaten red slipped ware
15.4	17031	1101NE	(I.2, XXVI)	Rim of black and red ware
15.5	17051	1125NE	(I.1, XXIII)	Sherd of black and red ware
15.6	17047	1101SE	(I.2, XXVI)	Sherd of black and red ware
15.7	17140	1125SE	(I.2, XXIII)	Large sherd of deep red burnished ware
15.8	17139	1125SE	(I.1, XXIII)	Rim and neck of black water pot
15.9	17155	1125NE	(I.1, XXIII)	Neck of black and red ware pot
15.10	17235	1172SE	(I.1, XXII)	Rim of black and red ware bowl
15.11	17234	1208-	(J.5, XXI)	Underside of dull brown-red <i>thali</i>
15.12	17237	1172SE	(I.1, XXII)	Sherd of black and red ware
15.13	17242	1119SW	(I.3, XXIX)	Rim of pale pink-black ware
15.14	17240	1119SW	(I.3, XXIX)	Rim of black and red <i>thali</i>
15.15	17244	1119SW	(I.3, XXIX)	Upper part of water pot of gritty ware
15.16	17247	1125SW	(I.1, XXIII)	Sherd of black and red ware
15.17	17309	1236NW	(J.4, XIX)	Sherd of black-brown ware, on outer surface
15.18	17309	1236NW	(J.4, XIX)	On inner surface of the same sherd
15.19	17310	1206-	(J.5, XXXVI)	Sherd of red slipped ware
15.20	17307	1216-	(J.4, XIX)	Sherd of red slipped ware
15.21	17306	1216-	(J.4, XIX)	Rim of black and red ware
15.22	17304	1206NE	(J.5, XXXVI)	Sherd of black and red ware
15.23	17305	1206NE	(J.5, XXXVI)	Sherd of beaten black and red ware
15.24	17417	1216-	(J.4, XIX)	Sherd of brown ware
15.25	17421	1191-	(J.5, XXI)	Rim of black and red ware
15.26	17423	1175SE	(J.4, XVIII)	Sherd of black and red ware
15.27	17426	1103-	(I.2, XXVII)	Rim of black and red ware
15.28	17427	1175NE	(J.4, XVIII)	Side of black and red ware bowl
15.29	17428	1175NE	(J.4, XVIII)	Sherd of black and red ware
15.30	17429	1292SE	(J.4, XIX)	Sherd of black and red ware
15.31	17527	1399NE	(I.6, XXXVI)	Sherd of coarse gritty ware with external red slip
15.32	17517	1293SW	(? -, XVI)	Sherd of black and red ware
15.33	17523	1473	(J.3, XVII)	Coarse ware sherd, black and red
15.34	10675	1382	(J.3, XVII)	Black and red burnished ware, 'pot 1' from 'burial' pit
15.35	19678	1382	(J.3, XVII)	Black burnished 'pot 4' from same pit as 15.34

16. Sealings

16.1	342	104NW	(D, XCV)	This is a clay sealing with an impressed scene on its face and cord impressions on its reverse side, indicating that the sealing had either been attached to some bundle of merchandise or perhaps was employed in the sealing of a storeroom door (Plate 9.20). The seal impression is in the form of a disc, 3.2cm in diameter, containing three objects. The central object is a flowering plant in a globular pot, flanked by two tall, thin oil lamps. Parānavitana has suggested that such scenes date to between the tenth and fourteenth centuries AD (1936: 9). The scene may represent the vase of plenitude.
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This is a clay sealing with an indistinct impression on its face and vague cord impressions on its reverse side, indicating that the sealing had either been attached to some bundle of merchandise or perhaps was employed in the sealing of a storeroom door.

9.4 Discussion and conclusion

9.4.1 The inscriptions

In the first part of this chapter we considered the evidence provided by the ASW2 excavations regarding the introduction and subsequent use of writing in Anuradhapura. Our aim has been to maintain this perspective throughout and to resist the temptation of straying into wider questions, such as the origins of the Brahmi script (Coningham *et al.* 1996). For this reason, comparative material has been used where it may be helpful in throwing light on the material under discussion and on the settlement and its inhabitants, rather than in touching on these wider themes. The inscriptions in themselves raise questions of considerable importance which are difficult to solve. In reaching our conclusions we shall revert to one or two of these matters and indicate our views on some of the questions they raise. Finally, it must be accepted that the total body of inscriptional data at our disposal is very slight and needs to be reinforced by further excavations leading to the discovery of further dated samples.

The small pits excavated by Siran Deraniyagala at Anuradhapura drew attention to the existence of early Brahmi inscriptions in many parts of the site and for the first time supported them with systematic radiocarbon dates (Deraniyagala 1992: 739–50; Deraniyagala and Abeyratne 2000). Until all these materials are fully published they cannot be satisfactorily used to compare with our evidence. It may however be remarked that the evidence from both series appears closely to coincide and thus to support the general chronology and interpretation we have both drawn from our data.

9.4.1.1 Problems of chronology

The excavations offer an exciting challenge by making it possible to compare several categories of chronological evidence. Obviously the first and major of these is archaeological dating, involving the accurate excavation of the site, with sound stratigraphy linked with properly collected radiocarbon dates, calibrated by the OxCal program (see Volume 1, Chapter 6: Dating the Sequence). As these dates can be firmly linked to the sequence of building periods discovered in ASW2, they ensure an accurate structural chronology for the site and for the finds in each period.

The second category of dating for the inscriptions is what we have called 'epigraphical'. This is obtained by careful observation of the letter forms, looking for significant changes taking place through time, and where possible making comparison with dated materials from other sites. This method cannot as yet be applied to the earlier half of our sequence. This is because nowhere, since the initial discovery and reading of the Asokan

inscriptions by James Prinsep more than a century and a half ago, have any inscriptions been discovered which can be either dated or proven to be earlier than those of Asoka. Thus there is no way of comparing the epigraphical sequence of our earlier inscriptions with other dated examples, since there are none known. There are plentiful materials for such comparison for the later half of the sequence, and it is these that permit us to speak of the 'epigraphical age' of some of the inscriptions.

A third category of dating may be called 'historical'. This too is only possible for the later part of the sequence and arises from the fact that several named and titled persons mentioned in our inscriptions appear to be identical to persons bearing the same names and titles who are mentioned in cave inscriptions from Mihintale and elsewhere. In some instances the named persons are also described in the cave inscriptions as being related by kin to a ruler, whose dates may be more or less certainly ascertained. We do not regard ourselves as competent to carry this study to any great depth. The early cave inscriptions provide some difficult and problematic data. For instance, are the many kings they mention, with titles combining such elements as *maharajha*, *devanampiya*, *gamini*, *tiśa* (incidentally commonly written without the lengthening of the vowels *a* and *i*), one and the same person, or several people? We refer the reader to the wise words and careful analysis of this matter by Paranavitana (1970: xlv–lxiii). We are inclined to accept his conclusion that the names of a number of the royal personages associated with the Buddhist cave donations are those of Devanampiya, the junior contemporary of Asoka, and of his successors for the next two or three generations. If this is the case, they belong to a period of less than a century following the arrival of Mahinda's mission in Sri Lanka – roughly equivalent to Period H at trench ASW2 (Volume 1, Chapter 6: Dating the Sequence: 128). It is also conceivable that a substantial part of the massive output of early Buddhist dedicatory inscriptions found all over Sri Lanka may belong to this same period. As we have already remarked there is, to date, in our excavations a complete absence of inscriptions datable, either epigraphically or by radiocarbon, to the first century AD or later. Karunaratne (1984) has convincingly demonstrated that inscriptions showing evidence of the new style of writing which began around that date also often contain references to appropriately dated rulers.

We believe the exercise of comparing the different categories of dating evidence is well worth pursuing and likely to provide significant new light on the early history of Sri Lanka, as well as providing an objective yardstick against which the accuracy of the chronicles may be

assessed. The archaeological dating of the use of writing at Anuradhapura seems reasonably firm in outline, although less firm in detail (see Table 9.3). The earliest letter-like graffiti resembling Brahmi occur in period J3 (phase XVII), i.e. between c. 450 and 400 BC. The earliest crude inscriptions occur in J4 (phase XVIII), between around 400 and 340 BC. From period I1 onwards (phases XXII to XXIII) more regular, standardized Brahmi letter forms are found, suggesting perhaps a further extraneous influence, probably from the direction of North India (although of course no dated inscriptions of this period are so far reported from there). From period I3 (phases XXVIII to LIII) onwards (i.e. from c. 300 to 200 BC), there is a tendency for the letter sizes to become smaller and the neatness of writing more marked. These tendencies continue through period H (phases LIV to LXIV) and the early part of G (phases LXVII to LXXII), i.e. from c. 200 to 150 BC. Thereafter the custom of scratching inscriptions on pottery seems rapidly to have declined and even disappeared, and the few examples from later periods of the excavation may well be strays redeposited in the course of building operations.

With regard to the epigraphical dating there is little more to add. The crude, ungainly letters found in several of the few inscriptions of period J speak for themselves and raise the question whether a single more regular inscription (No.1.16 [sf 17308]), of which in any case the letters are all incomplete, is not stratigraphically out of place. This may also be the case in one example from period I1 (No.1.20 [sf 228A]). It should be noted, however, that a very similar situation was also observed in adjacent trench ASW88 (Deraniyagala and Abeyratne 2000), suggesting that our own models for the adoption of writing may be oversimplistic, given the complex dynamics involved. During the course of periods I and H the frequency of inscribed material permits us to observe some small developments in the script. This is particularly clear in the case of the form of *ma* which we have called 'dumpy'. Another interesting indication of change is the appearance of two examples of the dental *sa* (in Nos 1.20 [sf 228A] and 4.2 [sf 10249]). Apart from the stratigraphically doubtful No.1.20, this letter is absent from our inscriptions. The date of its first usage can only be estimated on the basis of epigraphical evidence. This suggests that the two occurrences should be dated to the late third to early second centuries BC. However, the most striking fact of the later range of inscriptions is not so much the presence of change as its absence. As we remarked above, none of the letter forms which distinguish the first centuries BC or AD, or indeed thereafter, are in evidence among our materials. Presumably this does not mean the disappearance of writing, but rather the abandonment of the custom of inscribing pottery with the name of its owner or user. Writing by this time must have become more common, but employing different, more transient materials such as ola leaf which have disappeared, as suggested by the presence of ivory and bone plaques discussed in Chapter 10: Faunal Remains, section 10.3.1.18.

We noticed above that changes in the style of script begin to exert themselves across North India from the middle of the first century BC, and more clearly from the

first century AD. Yet these features are scarcely visible in our materials. Dani convincingly argued that the changes were to a large measure related to the introduction of a new writing tool, the reed pen, with square cut tip (Dani 1963). Such pens must have been used in conjunction with ink and depended on the availability of a suitable material for writing. We believe that the main changes visible in the Sri Lankan inscriptional record from the first century AD forward are related to these causes. Thus it may be suggested that the absence of evidence for change in our excavations demonstrates that the decline of the scratching of inscriptions and graffiti on pottery coincides in a general way with the rise of these new features. Henceforward writing was presumably done on other, more transient materials which have not survived.

The cross-dating evidence provided by Buddhist cave inscriptions is, as we have remarked above, very challenging, and its study certainly deserves to be carried further. No.1.20 (sf 228A) mentions the name of (A)bi Yahasiniyā, but it is not possible to ascertain whether she may be identified with the lady of the same name, but bearing the title *upāsikā* (lay worshipper), who donated a cave at Rajagala (Paranavitana, No. 422), and possibly also with a *samanikā* (nun) of the same name mentioned in a Vessagiri inscription (Paranavitana, No. 39). Similarly, it is impossible to judge whether the Abi Tisa of inscription No.1.19 (sf 25133) may be identified with the lady of this name, daughter of Maharajha Gamini Uu, who donated a cave at Mihintale (Paranavitana, No. 34). The donors at Rajagala and Mihintale may be expected to have flourished during the last decades of the third and early part of the second century BC (our period H), while the lady associated with sf 228A belonged to period I1 and the lady associated with sf 25133 to period G1. Given the clear continuity of many names such as Gamani and Tissa in the island, there is the strong possibility that (A)bi Yahasiniya and Abi Tisa were also popular names, frequently used during the long Early Historic period in Sri Lanka. From this point of view, the most satisfactory of our inscriptions is the clay sealing (No.4.2 [sf 10249]) of Tisaputa Magaha Purumaka, who appears to equate with the official of the same name found at Mihintale (Paranavitana, No. 22). Here archaeological, epigraphical and historical dating all coincide.

9.4.1.2 The wider implications of the inscriptions

We noticed above (in section 9.2.6) that such evidence as was available in the inscriptions pointed to their being written in a language akin to a North Indian Prakrit and that to date none of our inscriptions (with the possible exception of a single letter) is in Tamil. This observation, linked with the dates assigned to the earliest inscriptions, c. 400 BC, is obviously of great significance in that it appears broadly to support the traditional account of the *Mahavamsa* regarding northern contact with Sri Lanka from a date traditionally coinciding with the *Mahaparinirvana*, or 'great passing away' of the Buddha. It thus appears that archaeology is now able to throw an important new, objective light upon the

traditional account of the history of the island as well as on the developmental sequence of the early Brahmi script, although we are still uncertain as to the dynamics involved in such a linguistic shift (Coningham *et al.* 1996).

9.4.2 The graffiti

We have seen above that the earliest inscriptions appeared on pottery around 400 BC (period J4), but that during the preceding half century a small number of signs resembling Brahmi letters began to make their appearance. It is difficult to decide whether these should be treated as mere graffiti or as 'proto-inscriptions'. The earliest graffiti occur around or slightly before 500 BC, but they are for the most part fragmentary and rarely reveal enough to establish the character of the symbols of which they once formed a part. Nevertheless, they lead us to the conclusion that the incising of post-firing graffiti on pottery antedates the first appearance of writing at Anuradhapura by between fifty and one hundred years. Once the inscribing of pottery has begun, it marches side by side with the graffiti, although inscriptions outnumber graffiti in every period, and both seem to fall into desuetude at about the same time. It should be noted that Deraniyagala has reported the presence of graffiti and inscriptions in trenches AMP and ASW with even earlier dates (Deraniyagala 1992: 739–50).

9.4.2.1 Stylistic tendencies of Anuradhapura graffiti

We argued above (see section 9.3.4) that the graffiti from ASW2 may be regarded as exemplifying several stylistic tendencies. The first of these we referred to as the 'early' style. This is represented by a substantial number of sherds, of which few are sufficiently complete to allow the identification of the original symbols of which they formed a part. Such evidence as there is points to the early style being closely related to a common style found in many peninsular Iron Age sites in India and extending into Sri Lanka. This we have named the PIASS (Peninsular Iron Age Symbol System). We also noticed that from around 350 BC there was a shift from the more rambling style of the older graffiti to a more compact and concisely drawn style in the later. This second style we named 'urban'. Most of the recognizable symbols listed in the catalogues date from the fourth century BC and later. A number represent motifs that are found also in early Iron Age settlements and Megalithic grave sites in peninsular India, though there too they are often depicted in the rambling early style. A third style, which we named 'hieratic', was apparently introduced in the third century BC and is very much a part of the great expansion of Buddhism in Sri Lanka at that time. This we see as a specialized extension of the urban style, and it is represented at ASW2 by only a small number of specimens.

Quite apart from the stylistic change between the early and urban styles, there is also an interesting difference between symbol assemblages derived from grave sites and those from settlements. On excavation, some individual graves in India have been found to

contain many close variants of single symbol-types. In some instances these may have been individual owner's marks; but in view of the fact that Megalithic cist graves often contain multiple burials, they may be not so much the marks of individuals as of a family or clan (Coningham *et al.* 1996). A good example of the restricted nature of the sign repertoire found in graves is afforded by the excavations at Sanur, in the Chingleput district of Tamilnadu (Banerjee and Rajan 1959), and another by the excavations at Kodumanal (cited above). Both these and many other groups suggest parallels to what the Anuradhapura early style may have resembled, had any complete pots survived in the settlement.

9.4.2.2 The wider implications of the Dominant sign

One of the most interesting symbols from ASW2 is the Dominant sign (see Table 9.7). This appears first in period J3 (i.e. c. 450–420 BC), both in its main type and principal variety, and continues thereafter fairly regularly through to period G3. In all there are 43 examples of the main type and its principal varieties, and a further 31 examples of 'elements' of the type, either 'hands' or, more rarely, auspicious pots. The sign is thus far more common than any other symbol-type and bridges the change from the early to urban styles that seems to have taken place around periods J5 and I1.

The growing body of evidence deriving from excavations makes it look increasingly likely that the scratched graffiti are not individual owner's marks, but more probably signs signifying family, kin or clan. We may well ask ourselves what was the significance of a symbol such as the Dominant sign, of which so many examples were discovered in this small area of the city. As we saw above, several inscriptions mentioning the names of royal ladies and a royal official were also found there. There is a strong case therefore for regarding the Dominant sign as the symbol of a major extended family or clan living in that vicinity.

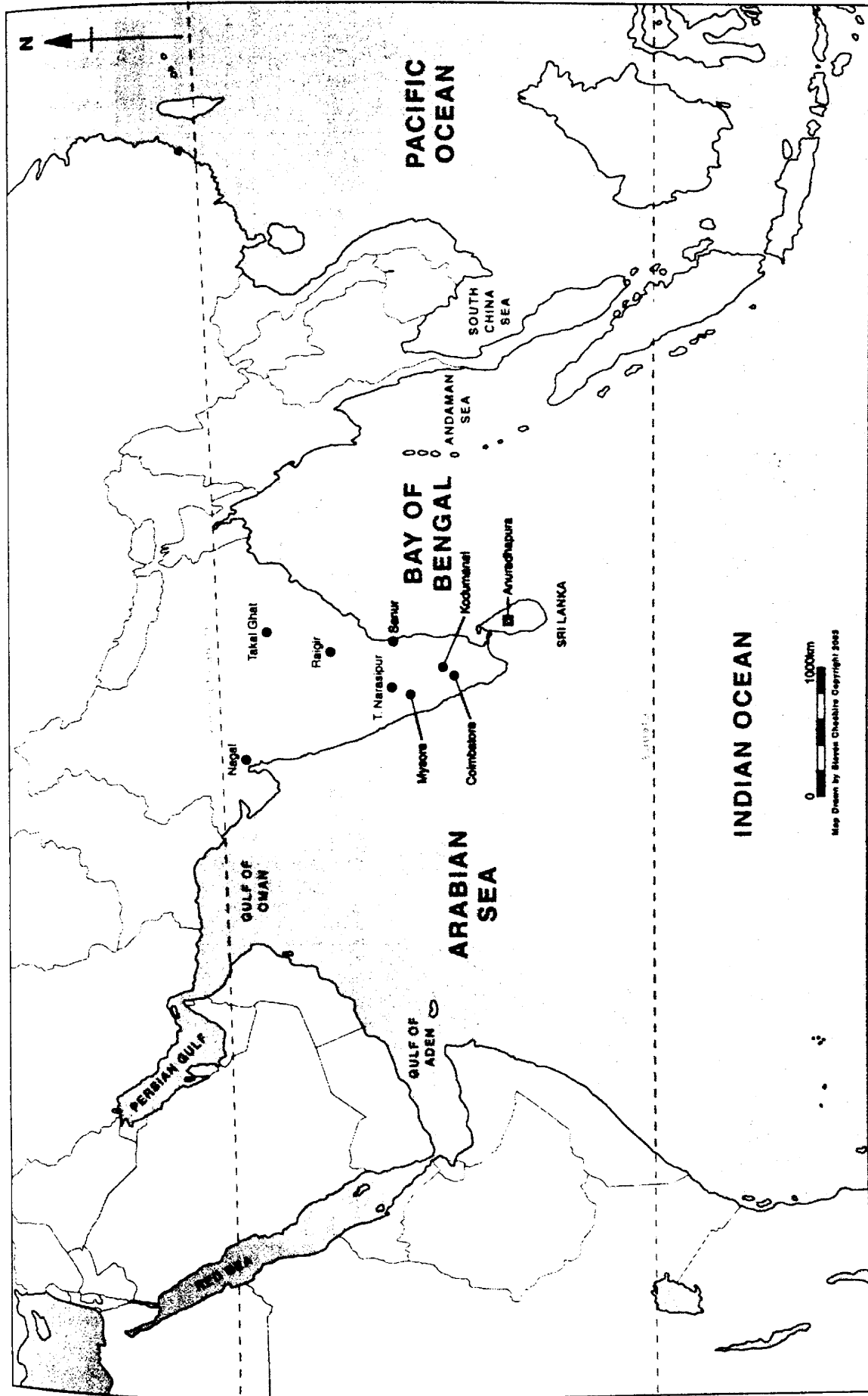
9.4.3 Inscriptions and graffiti: cultural complexity and interaction

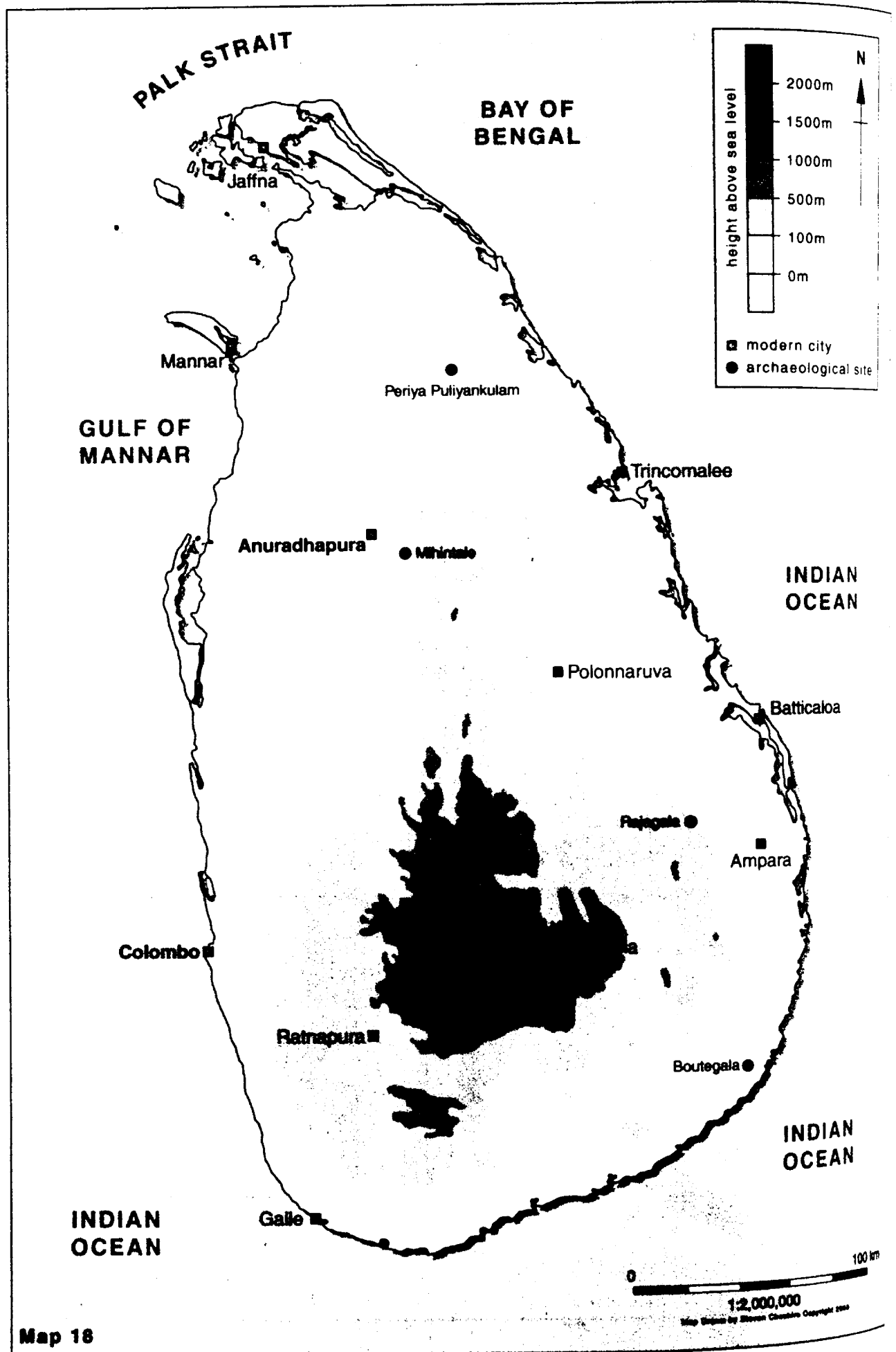
The graffiti and inscriptions are mainly known to us from their occurrence on pottery. One may enquire why it should have been found necessary to employ two parallel symbol systems in this context and how the systems relate to each other. Consideration of this question leads to some interesting contrasts and problematic conclusions. The graffiti appear almost from the beginning of the Iron Age occupation at Anuradhapura, and just as the material culture of this site shows a broad affinity to that of contemporary Iron Age cultures throughout South India and the Deccan; so too does the symbol system of Anuradhapura appear to be one of the constituent parts of the Peninsular Iron Age Symbol System (PIASS). By contrast, the inscriptions, when they appear at a slightly later date (c. 400 BC), introduce distinctly North Indian elements in terms of the language in which they are written, the names they use and, hypothetically, the Brahmi script itself. One way in which this contrasting evidence might be interpreted is as follows:

1) That during the early part of the first millennium BC an iron-using, agricultural population spread on the coastal plains of Sri Lanka. Such a development would be broadly parallel to the growth of population on the coastal plains of southern India. As a result, the Early Iron Age cultures of both coastal South India and Sri Lanka shared many common features. One of these was the complex of burial practices and funerary monuments which is commonly spoken of as Megalithic or – as we prefer to call it – the South Indian Iron Age burial complex. The Iron Age agricultural population of Sri Lanka at that time must also have spread into the interior, carrying with it its own distinctive lifestyle. Doubtless this population maintained links with the apparently related tribal groups and emerging kingdoms which contemporarily flourished on the mainland. It seems therefore entirely reasonable to postulate that these people would have developed their own regional version of the PIASS, which was at that time employed for distinguishing the ownership of pottery vessels and probably other possessions (Coningham *et al.* 1996). The type we call the Dominant sign is in keeping with a PIASS symbol and could well belong to the ruling family or clan in the newly established settlement that was subsequently to be called Anuradhapura. The presence of a variant of the Dominant sign on a pot from Kodumanal, in Coimbatore District, Tamilnadu, alongside an inscription in Tamil Brahmi referring to a 'king', may even lead us to wonder whether there might have been some sort of heraldic or family linkage between the population of the two regions.

2) To understand the context in which inscriptions were written in a North Indian Prakrit language, ancestral to Sinhalese, in what was probably in origin a North Indian Brahmi script, one must postulate that at some date before 400 BC a group speaking and writing that language gained a position of social or economic dominance in some part of Sri Lanka, and in due course extended their power to Anuradhapura. Around 350 BC, an already mature and well-written series of short inscriptions occur on pottery and appear to coincide with the establishment of an altogether new level of urban culture there. This leads to one other point: that the use of Brahmi inscriptions to establish the names of individual owners of pottery vessels probably also indicates that the earlier symbol system, while able to convey information regarding extended family or clan ownership, was inadequate to signify the names of individual owners. This change appears to be in keeping with growing urbanism and with the emergence of the idea of individual property as against an earlier concept of clan ownership (Coningham *et al.* 1996).

The relationship and interaction of the symbol system and the inscriptions may well encapsulate something of the relationship of the two communities from which they derived. In this way archaeology and the topics dealt with in this chapter may be helpful in pointing towards a new perspective on the relations between language, script and archaeology in Early Historic Sri Lanka.





Map 18

Table 9.1 Inscriptions and graffiti

Category Period	Inscription	Single akṣaras etc.	Total inscriptions	Dominant sign graffiti	Other graffiti	Misc. graffiti	Total graffiti	Totals
A								
B5								
B4								
B3								
B2								
B1								
C, D & E	1		1			7	7	8
F								
G5	2		2			3	3	6
G4					1		1	1
G3		2	2	3	1		4	6
G2		12	12	17	17	1	35	47
G1				3	1		12	12
H	6	21	27	15	10	3	28	55
I8	2	8	10	7	4	1	12	22
I7		5	5	7	2	21	30	35
I6	1		1	3	5	14	22	23
I5	1	3	4	1	1		2	6
I4	2	2	4	3	3	37	43	47
I3	3		3	5	11	7	23	26
I2	2	3	5	1	6	26	33	38
I1	4	11	15	3	14	41	58	73
J6	1	3	4	1	6	13	20	24
J4	3	2	5	2	9	3	14	19
J3		5	5	4	7	3	14	19
J2						12	12	12
J1						3	3	3
K3						1	1	1
K2								
K1								
Total	28	77	105	75	98	204	377	482

Table 9.2 Inscriptions on potsherds

Period	Category	Special find no. (catalogue no.)	Total
A			
B5			
B4			
B3			
B2			
B1			
C, D & E			
F			
G5		25133(1.19), 8190(1.21)	2
G4			
G3			
G2			
G1			
H		16195(1.3), 16313(1.7), 16194(1.8), 176A(1.23), 16348(1.26)	5
I8		16472(1.1), 16454(1.2)	2
I7			
I6		16595(1.6)	1
I5		16620(1.5)	1
I4		16742(1.4), 17024(1.11)	2
I3		10517(1.9), 17025(1.10), 17095(1.25)	3
I2		17040(1.12), 139A(1.22)	2
I1		17138(1.13), 17330(1.14), 228A(1.20), 142A(1.24)	4
J6		17425(1.18)	1
J4		17332(1.15), 17308(1.16), 17420(1.17)	3
J3			
J2			
J1			
K3			
K2			
K1			
Total			26

J3	6.15.33 Λ	2.35 Λ	6.15.34 λ	6.5.6 ↑↓											
J4	6.15.28 +	6.15.29 λ							1.15 30	1.16 π	1.17 J	+			
J5	2.22 8								1.18 8						
I1	2.22 L	2.20 Δ	2.29 7	2.31 λ	2.27 U	2.28 U	2.23 8	2.24 8	1.13 U	1.14 E	1.24 λ	1.20 □			
I2	2.19 Λ								1.12 ↓		1.22 L				
I3	1.9 U								1.10 Y		1.25 8				
I4	2.25 H								1.4 Λ						
I5	2.30 +		2.5 Λ	2.21 8											
I6,7	2.32 Δ								1.6 □						
I8	2.3 +		2.7 δ	3.11 }					1.1 Λ		1.2 8				
H	2.2 +	2.4 +	2.10 Λ	2.8 λ	2.9 λ	2.10 λ	2.12 8	2.17 8	2.14 8	2.18 λ	1.3 Λ	1.7 +	1.8 Λ	1.23 Λ	1.26 □
G1											4.2 Λ				

Table 9.3 Inscriptions of catalogue 1

G3	Δ	
G4		𑀕𑀓𑀭𑀯𑀮, 𑀕𑀓
B		𑀧𑀧𑀲𑀓𑀮, 𑀧𑀧𑀲𑀓𑀮

Table 9.3 (continued)

Table 9.4 Single and double aksaras on potsherds

Period	Category	Special find no. (catalogue no.)	Total
A			
B5			
B4			
B3			
B2			
B1			
C, D & E			
F			
G5			
G4			
G3		15603(2.16)	1
G2		15613(2.1), 15613(2.6), 16071(2.11), 16462(2.13)	4
G1			
H		16503(2.2), 16194(2.4), 16428(2.8), 16326(2.9), 16314(2.10), 16529(2.12), 16487(2.14), 16432(2.15), 16176(2.17)	9
I8		16396(2.3), 16520(2.7), 16532(2.18)	3
I7			
I6		17303(2.32), 17311(2.33), 17526(2.34)	3
I5		16589(2.5), 16623(2.30)	2
I4		17148(2.25)	1
I3			
I2		17032(2.19)	1
I1		17050(2.20), 17131(2.22), 17134(2.23), 17136(2.24), 17151(2.26), 17152(2.27), 17156(2.28), 17236(2.29), 10643(2.31)	9
J5		17093(2.21)	1
J4			
J3		17521(2.35)	1
J2			
J1			
K3			
K2			
K1			
Total			35

Table 9.5a Other graffiti signs

Period	Category	Special find no. (catalogue no.)	Total
A			
B5			
B4			
B3			
B2			
B1			
C, D & E			
F			
G5		25133(1.19), 8190(1.21)	2
G4			
G3			
G2			
G1			
H		16195(1.3), 16313(1.7), 16194(1.8), 176A(1.23), 16348(1.26)	5
I8		16472(1.1), 16454(1.2)	2
I7			
I6		16595(1.6)	1
I5		16620(1.5)	1
I4		16742(1.4), 17024(1.11)	2
I3		10517(1.9), 17025(1.10), 17095(1.25)	3
I2		17040(1.12), 139A(1.22)	2
I1		17138(1.13), 17330(1.14), 228A(1.20), 142A(1.24)	4
J5		17425(1.18)	1
J4		17332(1.15), 17308(1.16), 17420(1.17)	3
J3			
J2			
J1			
K3			
K2			
K1			
Total			26













2.1 	2.2 	2.3 
2.4 	2.5 	2.6 
2.7 	2.8 	2.9 
2.10 	2.11 	2.12 

Table 9.5b Inscriptions of catalogue 2 - single and double aksaras






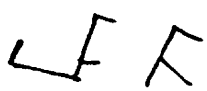






2.13 	2.14 	2.15 
2.16 	2.17 	2.18 
2.19 	2.20 	2.21 
2.22 	2.23 	2.24 

Table 9.5b (continued)

Inscriptions and Graffiti










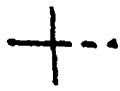

2.25 	2.26 	2.27 
2.28 	2.29 	2.30 
2.31 	2.32 	2.33 
2.34 	2.35 	

Table 9.5b (continued)


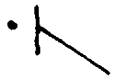










3.1 	3.2 	3.3 
3.4 	3.5 	3.6 
3.7 	3.8 	3.9 
3.10 	3.11 	3.12 

Table 9.6 Inscriptions of catalogue 3 - other letter-like graffiti






















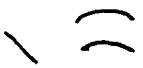


3.13 	3.14 	3.15 
3.16 	3.17 	3.18 
3.19 	3.20 	3.21 
3.22 	3.23 	3.24 

Table 9.6 (continued)

3.25 	3.26 	3.27 
3.28 	3.29 	3.30 
3.31 	3.32 	3.33 
3.34 	3.35 	3.36 










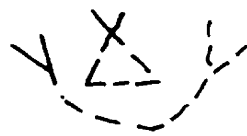


<p>5.1.1</p> 	<p>5.1.2</p> 
<p>5.1.3</p> 	<p>5.1.4</p> 
<p>5.1.5</p> 	<p>5.1.6</p> 
<p>5.1.7</p> 	<p>5.1.8</p> 
<p>5.1.9</p> 	<p>5.1.10</p> 
<p>5.1.11</p> 	<p>5.1.12</p> 

Table 9.7 Inscriptions of catalogue 5 - dominant signs












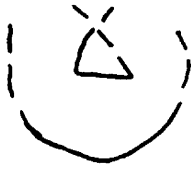





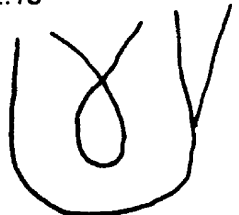
5.2.1 	5.2.2 	5.2.3 
5.2.4 	5.2.5 	5.2.6 
5.2.7 	5.2.8 	5.2.9 
5.2.10 	5.2.11 	5.2.12 
5.2.13 	5.2.14 	5.2.15 
5.2.16 	5.2.17 	5.2.18 

Table 9.7 (continued)











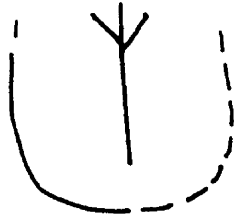



5.2.19 	5.2.20 	5.2.21 
5.2.22 	5.2.23 	5.2.24 
5.3.1 	5.3.2 	
5.3.3 	5.3.4 	
5.3.5 	5.3.6 	
5.3.7 	5.3.8 	

Table 9.7 (continued)









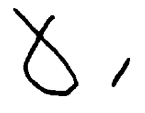



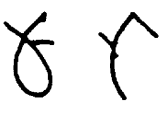
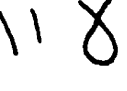

5.1.19 	5.4.20 	5.4.21 
5.4.22 	5.4.23 	5.4.24 
5.4.25 	5.4.26 	5.4.27 
5.4.28 	5.4.29 	5.4.30 
5.4.31 	5.4.32 	5.4.33 

Table 9.7 (continued)



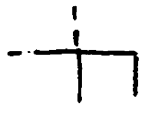

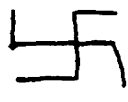
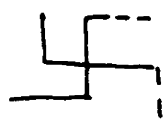

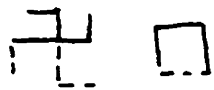

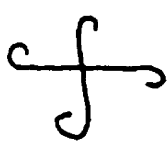
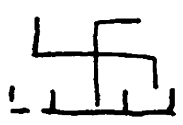


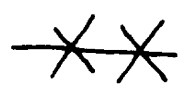


6.1.1 	6.1.2 	6.1.3 
6.1.4 	6.1.5 	6.1.6 
6.1.7 	6.1.8 	6.1.9 
6.1.10 	6.1.11 	
6.2.1 	6.2.2 	6.2.3 
6.3.1 	6.3.2 	

Table 9.8 Inscriptions of catalogue 6 - other signs



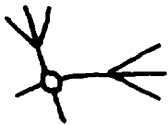












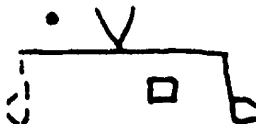

6.4.1		6.4.2		6.4.3	
6.5.1		6.5.2		6.5.3	
6.5.4		6.5.5		6.5.6	
6.6.1		6.6.2		6.6.3	
6.6.4		6.6.5			
6.7.1		6.8.1		6.8.2	

Table 9.8 (continued)

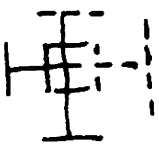
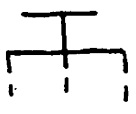
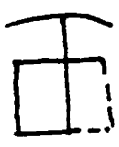
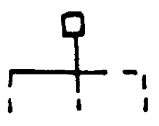
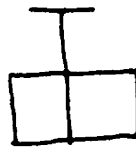
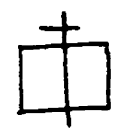


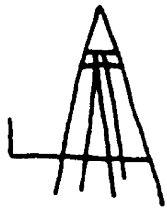

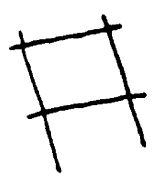
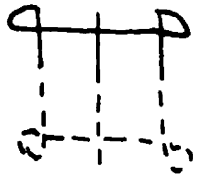
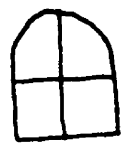
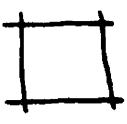
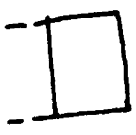
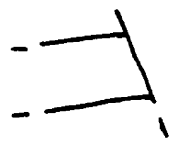
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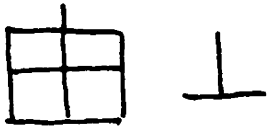
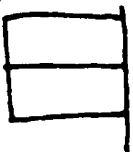
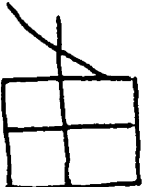
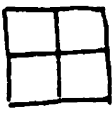

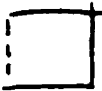
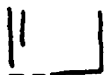
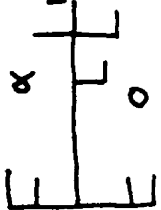
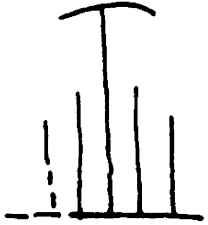

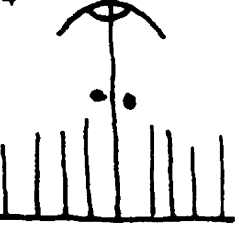
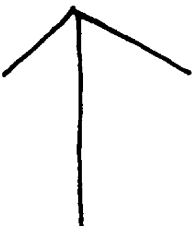
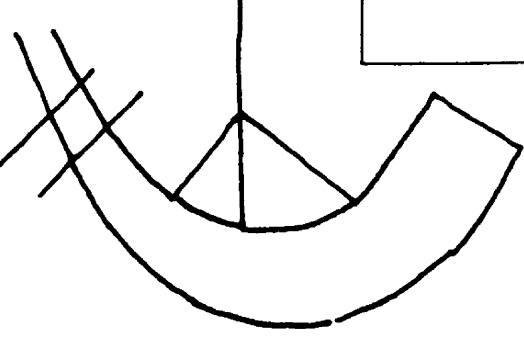


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6.14.1 		

Table 9.8 (continued)





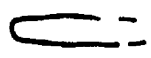

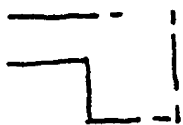







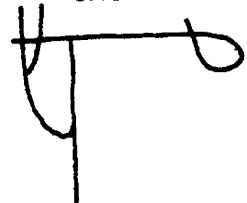



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6.15.16 	6.15.17 	6.15.18 

Table 9.8 (continued)


















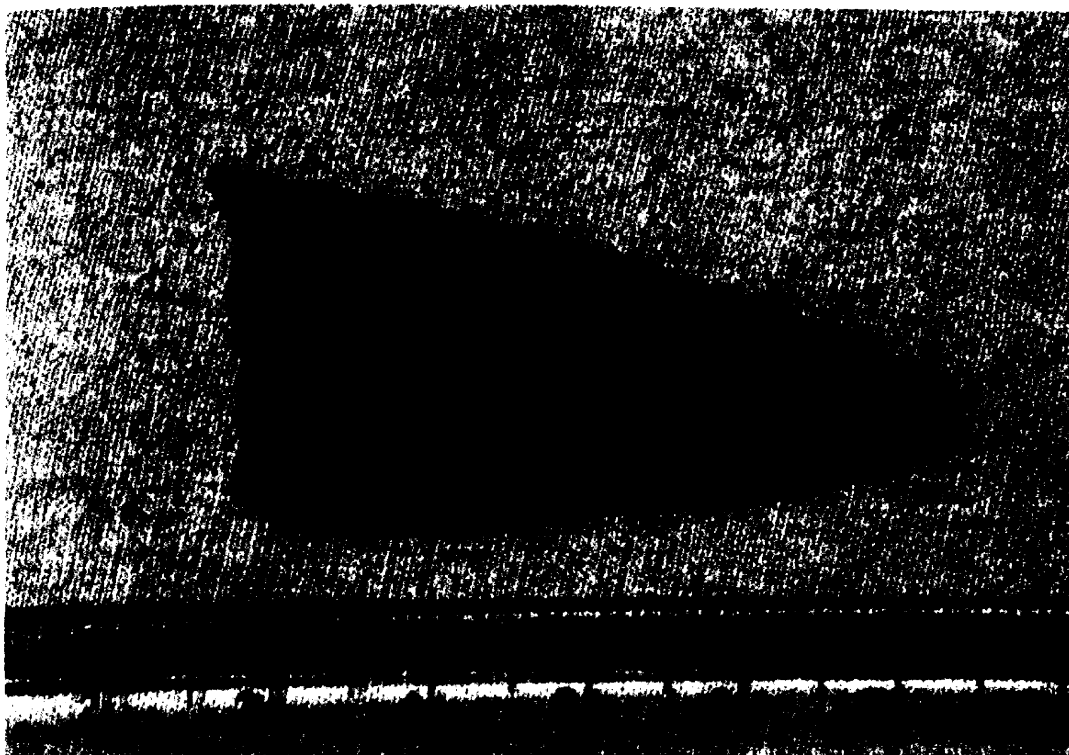
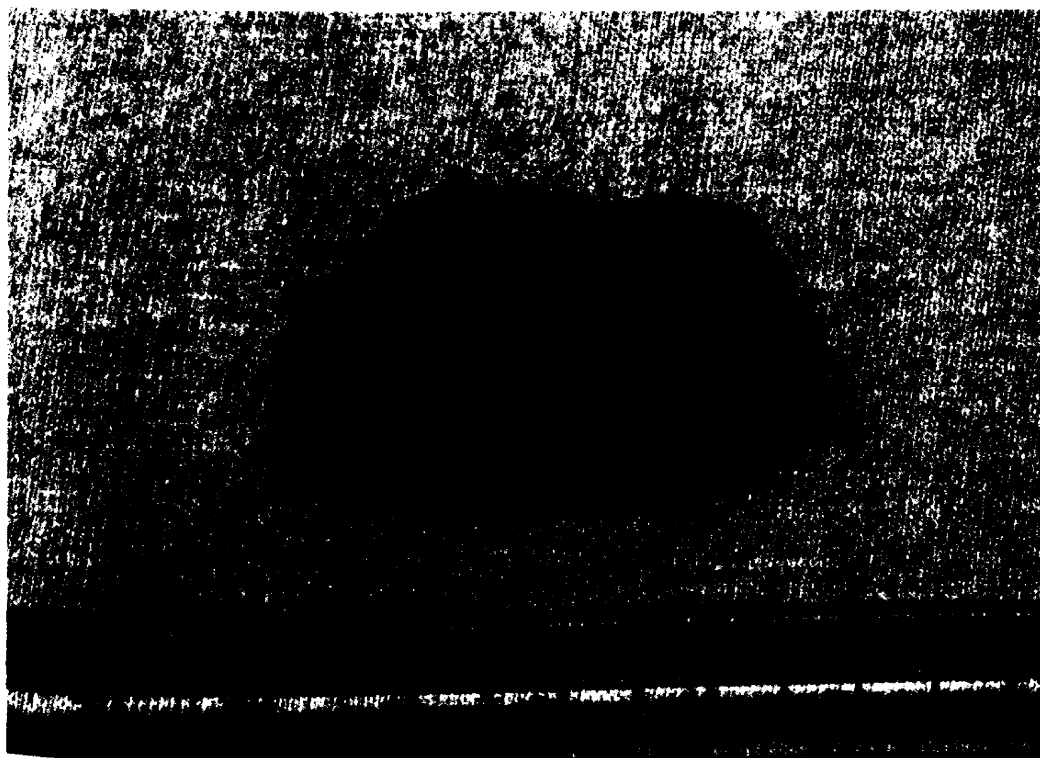
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6.15.34 	6.15.35 	

Table 9.8 (continued)

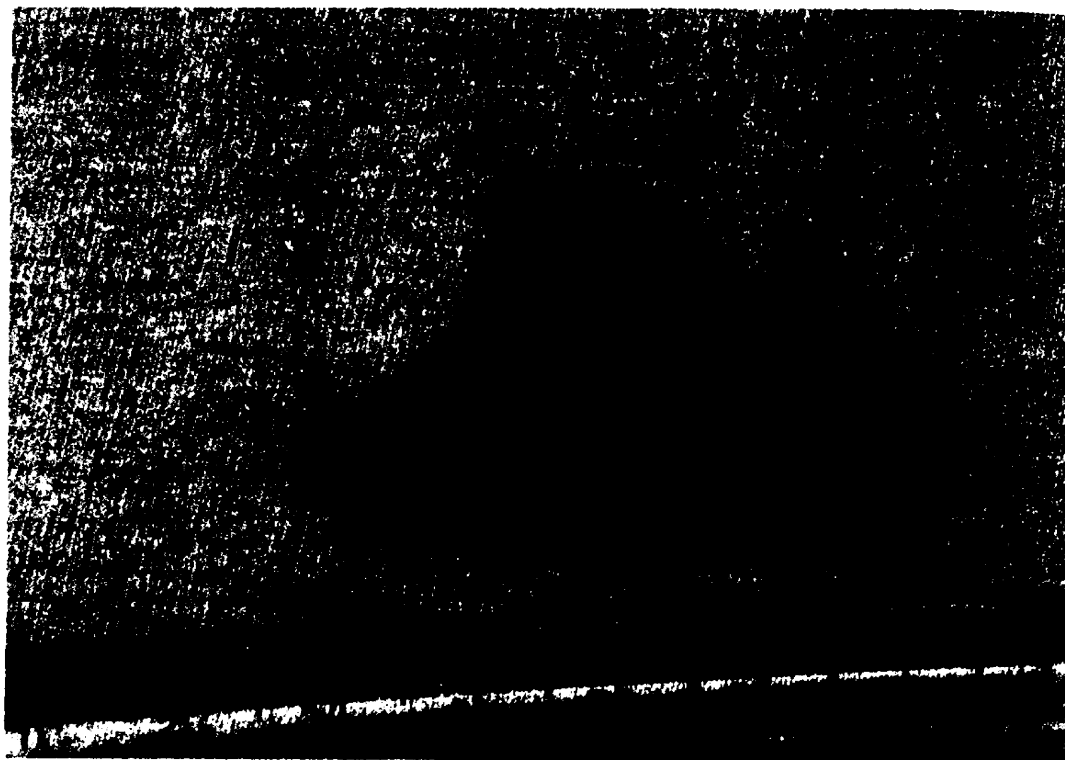


Inscription on pot sherd (sf 16472)

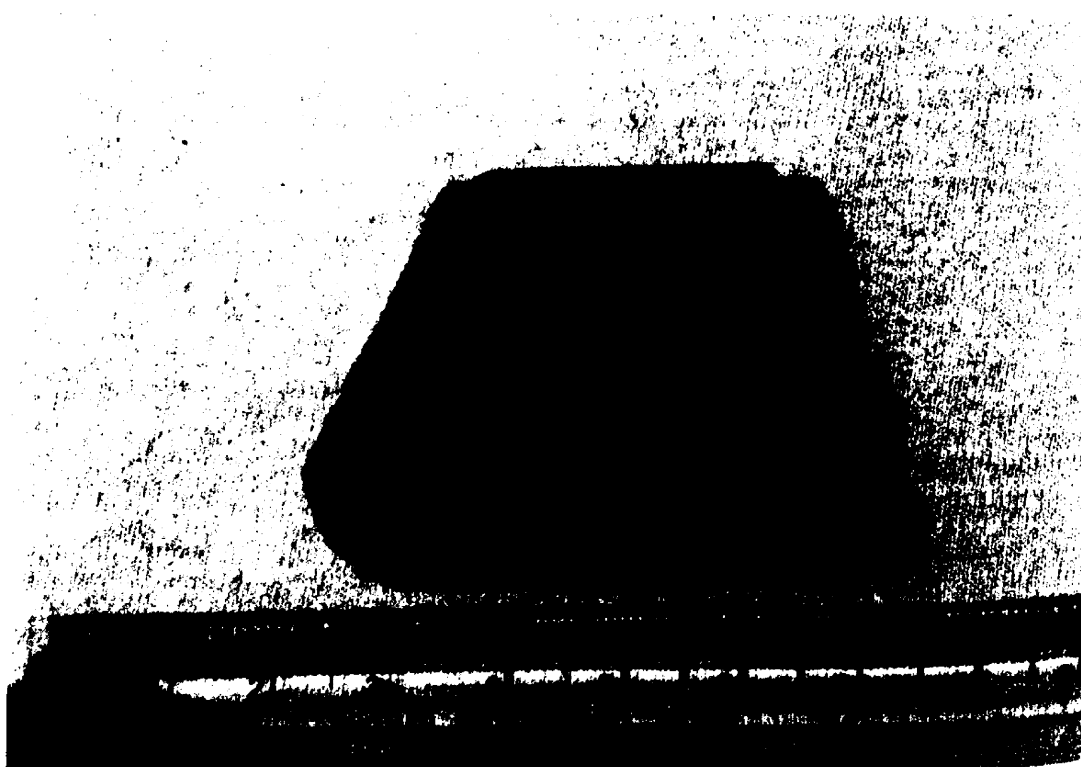


Inscription on pot sherd (sf 16454)

Plate 9.1: Inscriptions and graffiti



Inscription on pot sherd (sf 16195)

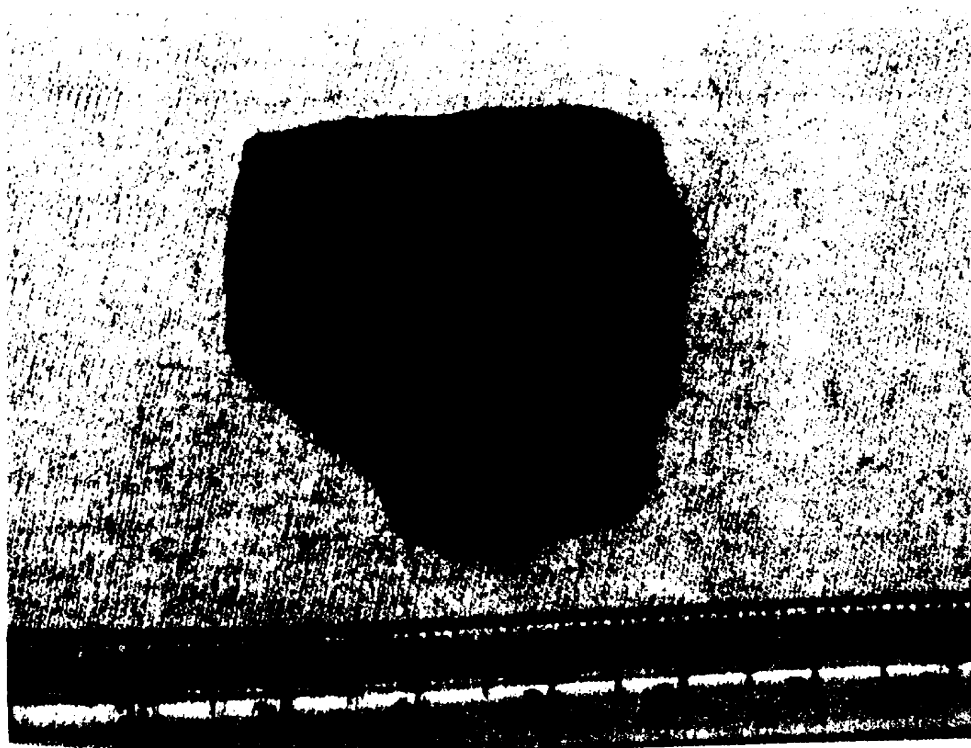


Inscription on pot sherd (sf 16742)

Plate 9.2: Inscriptions and graffiti

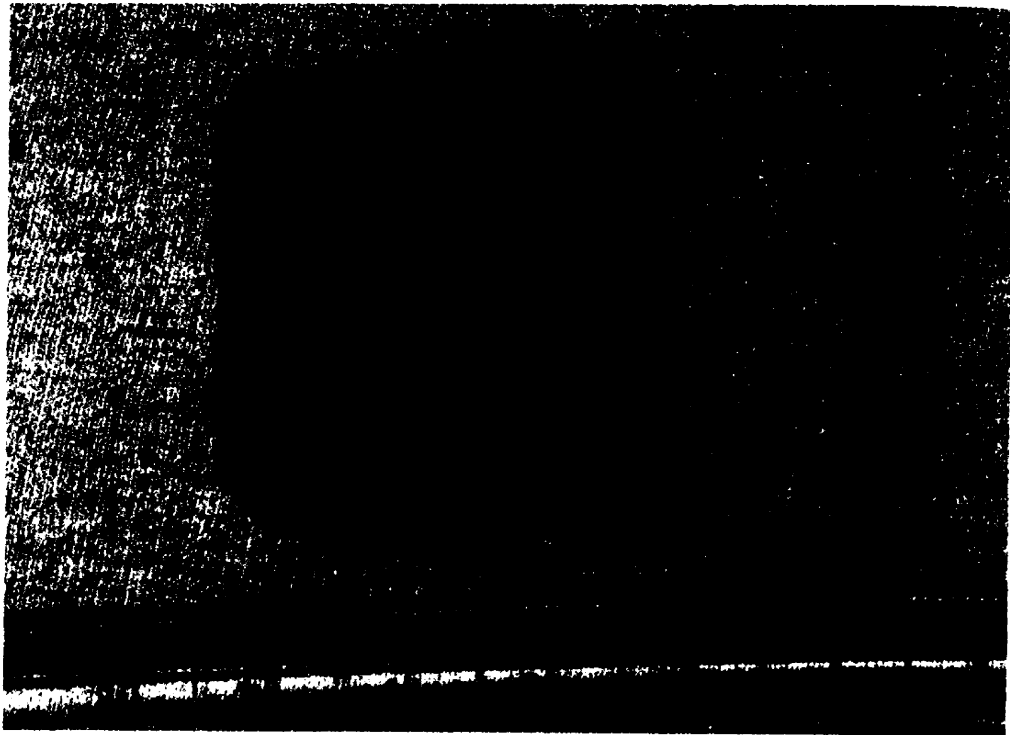


Inscription on pot sherd (sf 16595)

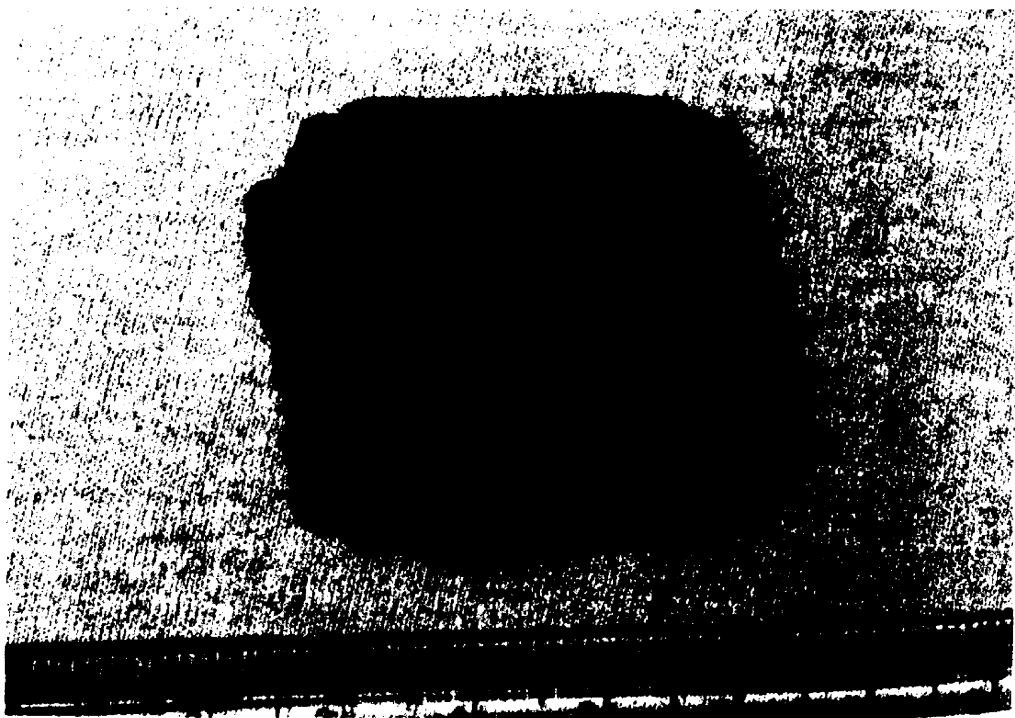


Inscription on pot sherd (sf 16313)

Plate 9.3: Inscriptions and graffiti

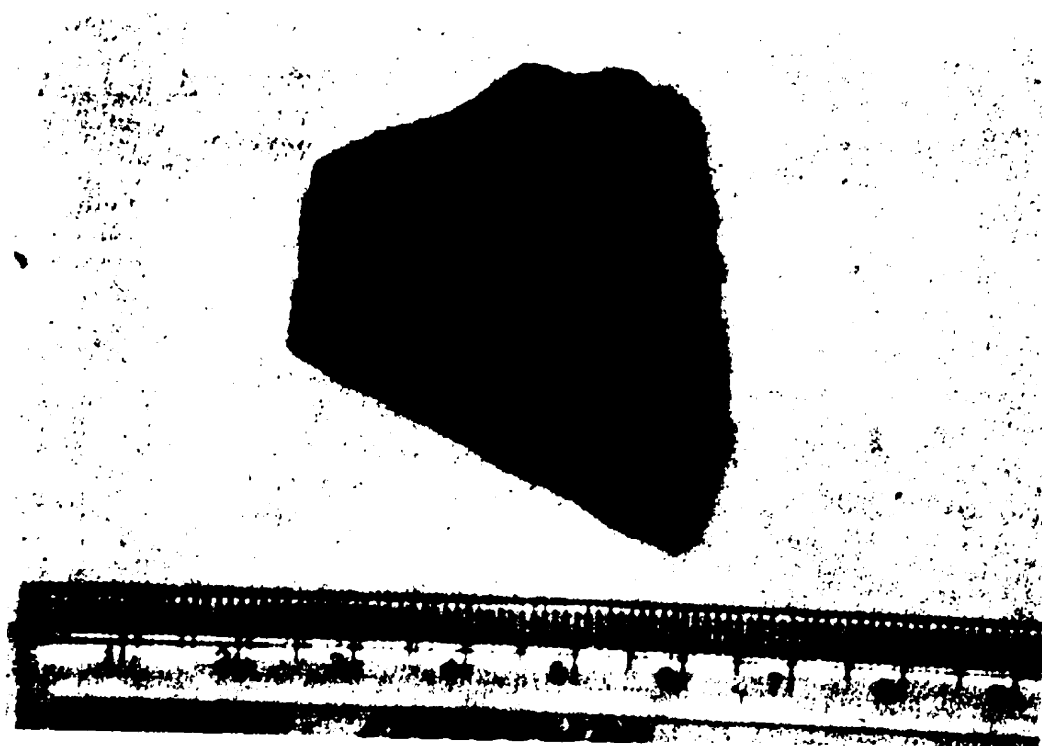


Inscription on pot sherd (sf 16194)



Inscription on pot sherd (sf 10517)

Plate 9.4: Inscriptions and graffiti

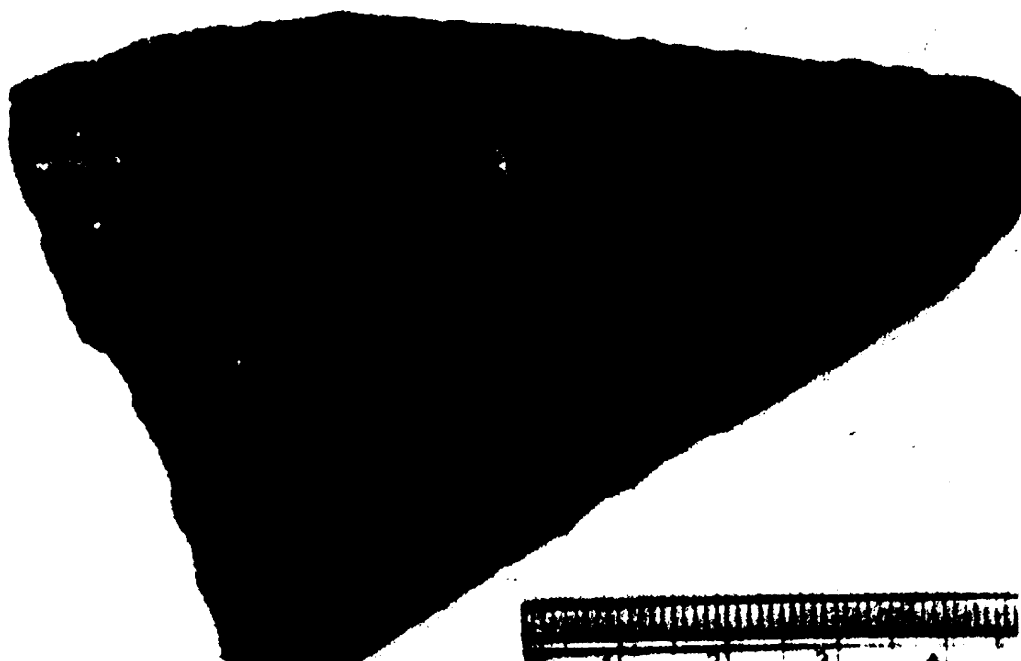


Inscription on pot sherd (sf 17025)

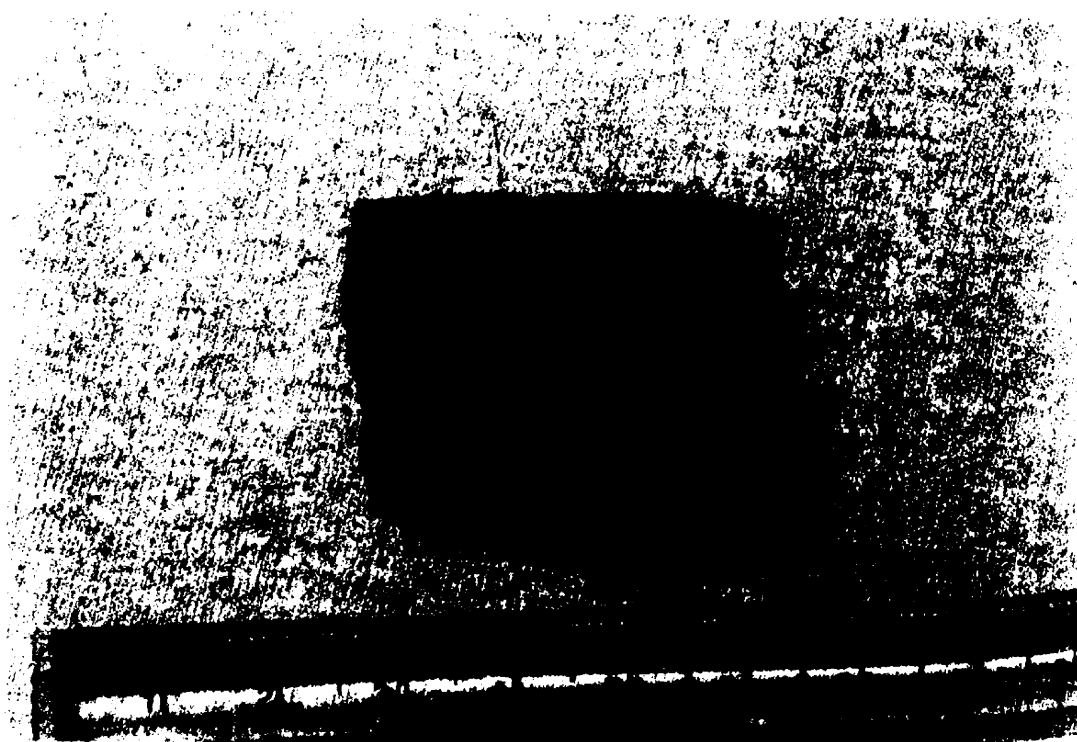


Inscription on pot sherd (sf 17024)

Plate 9.5: Inscriptions and graffiti



Inscription on pot sherd (sf 17040)



Inscription on pot sherd (sf 17138)

Plate 9.6: Inscriptions and graffiti

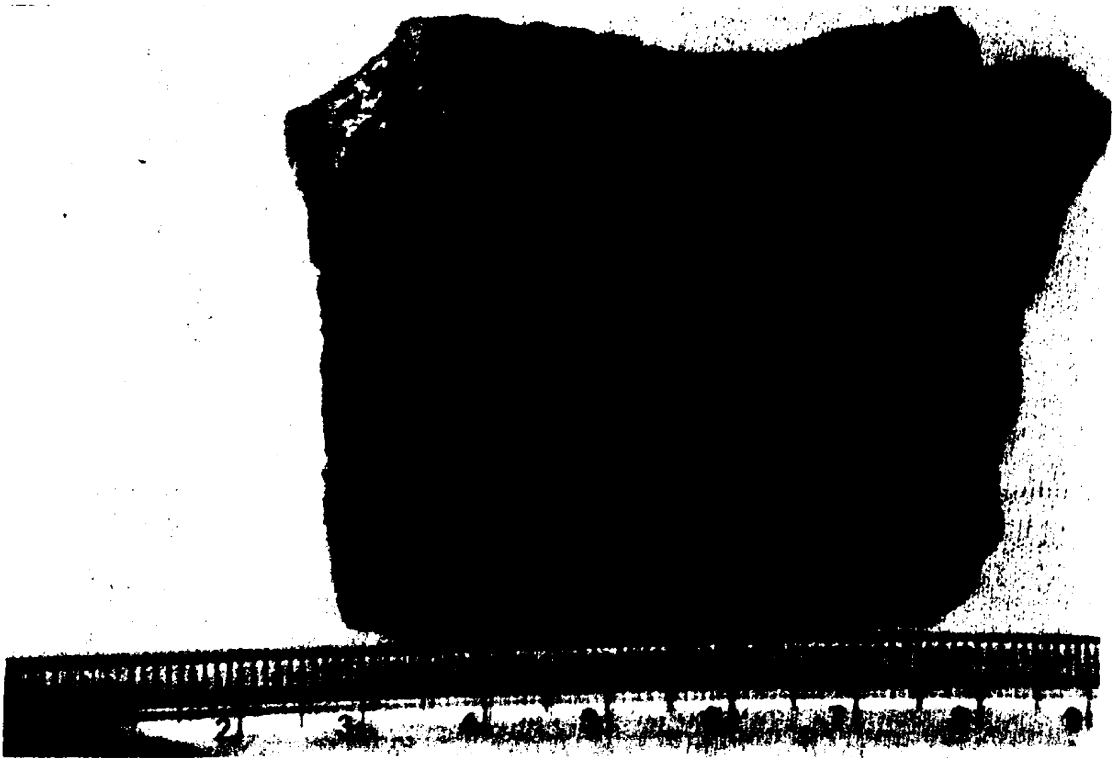


Inscription on pot sherd (sf 17330)



Inscription on pot sherd (sf 17332)

Plate 9.7: Inscriptions and graffiti

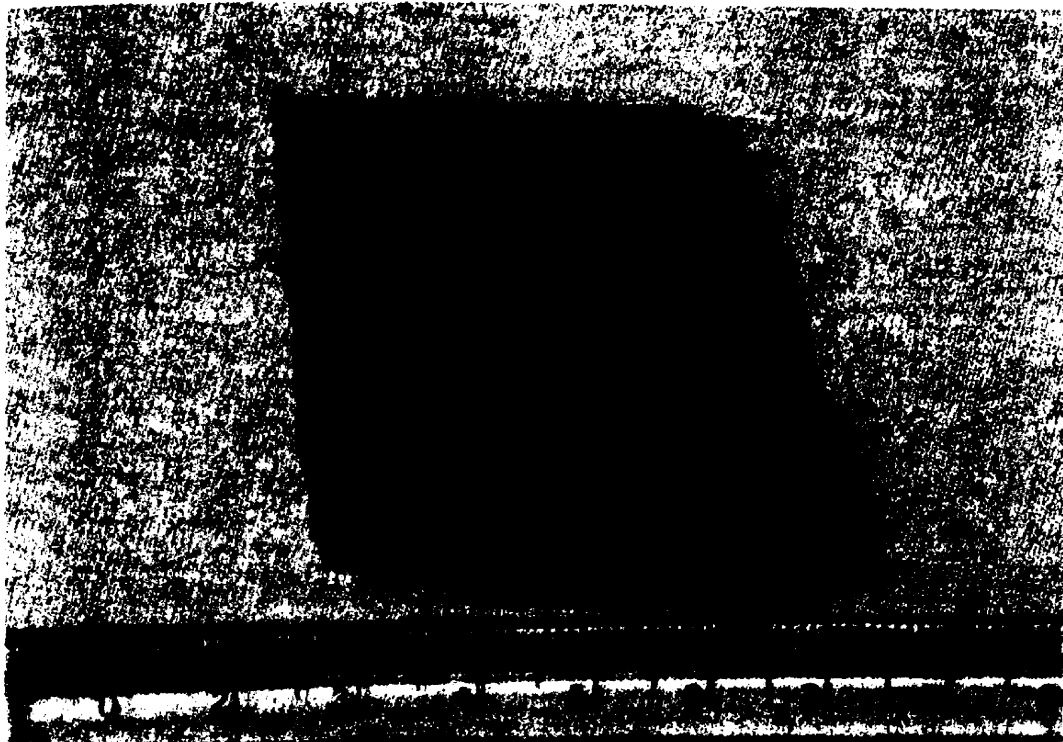


Inscription on pot sherd (sf 17308)

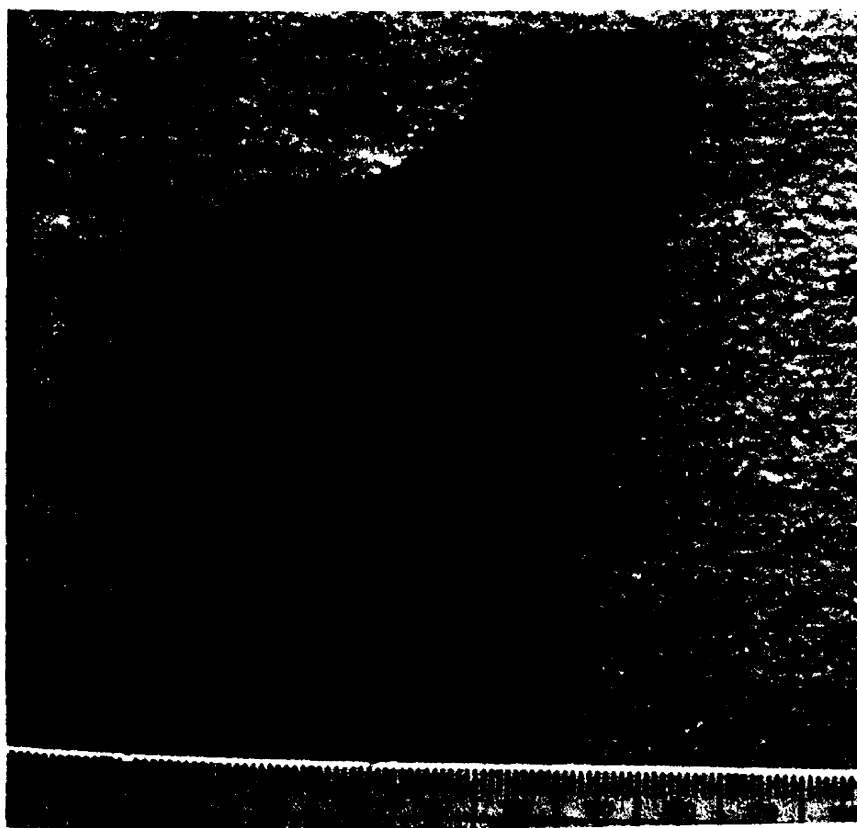


Inscription on pot sherd (sf 17420)

Plate 9.8: Inscriptions and graffiti

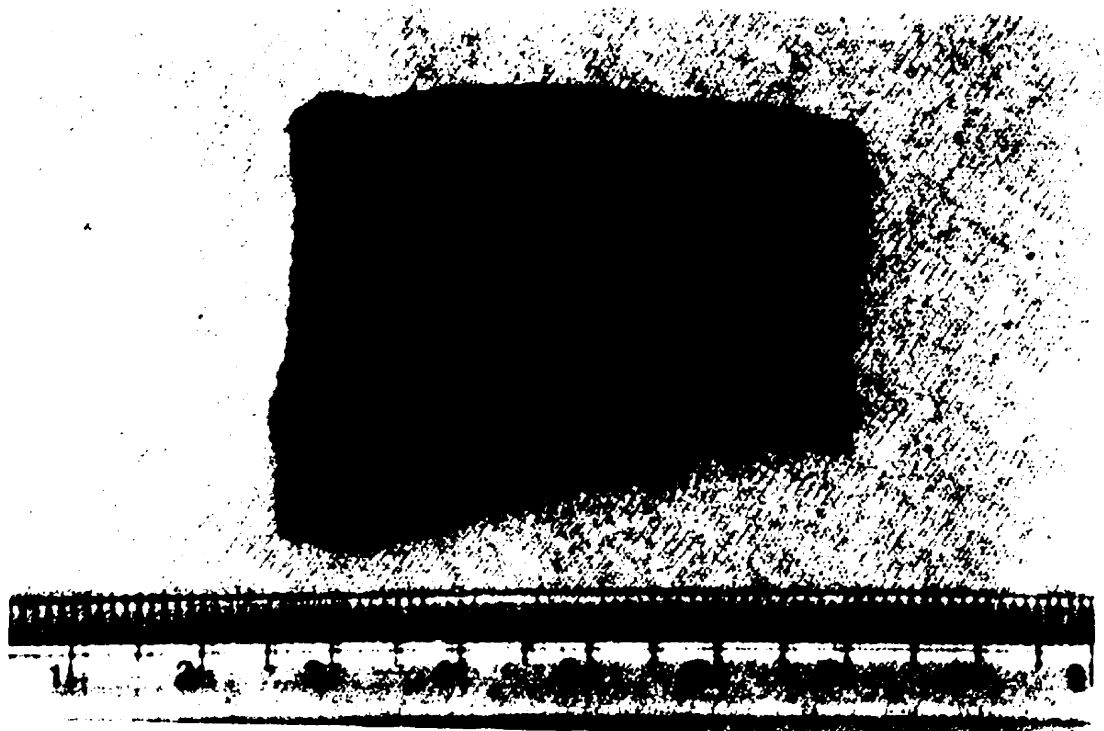


Inscription on pot sherd (sf 17425)

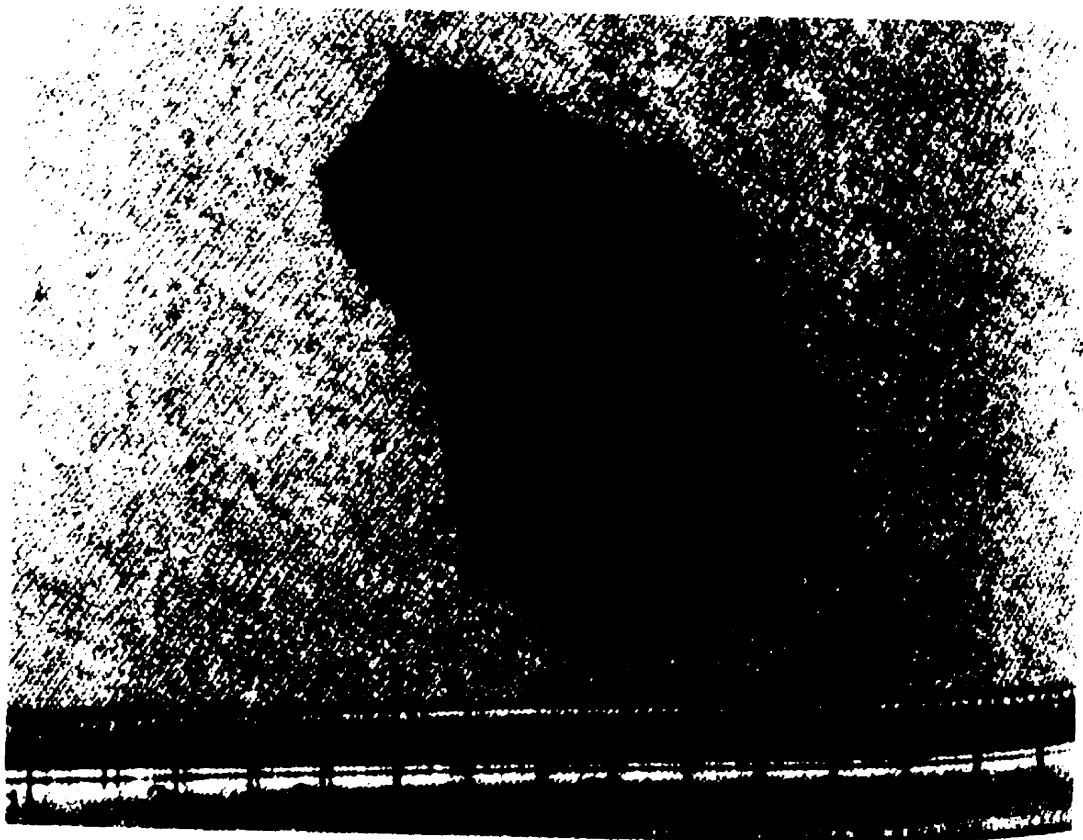


Inscription on pot sherd (sf 25133)

Plate 9.9: Inscriptions and graffiti

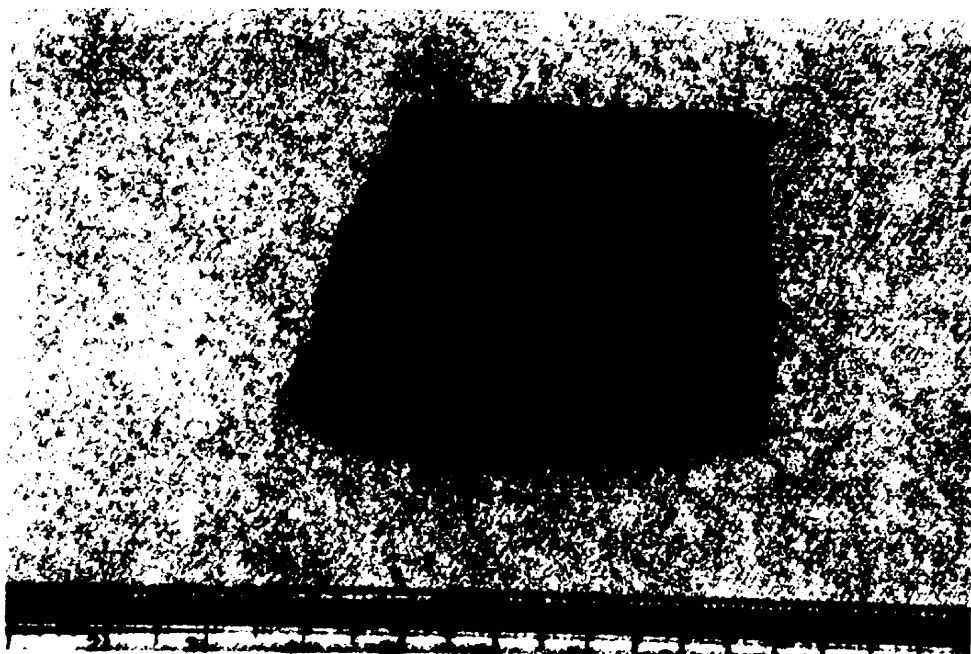


Single *akṣara* on pot sherd (sf 16396)

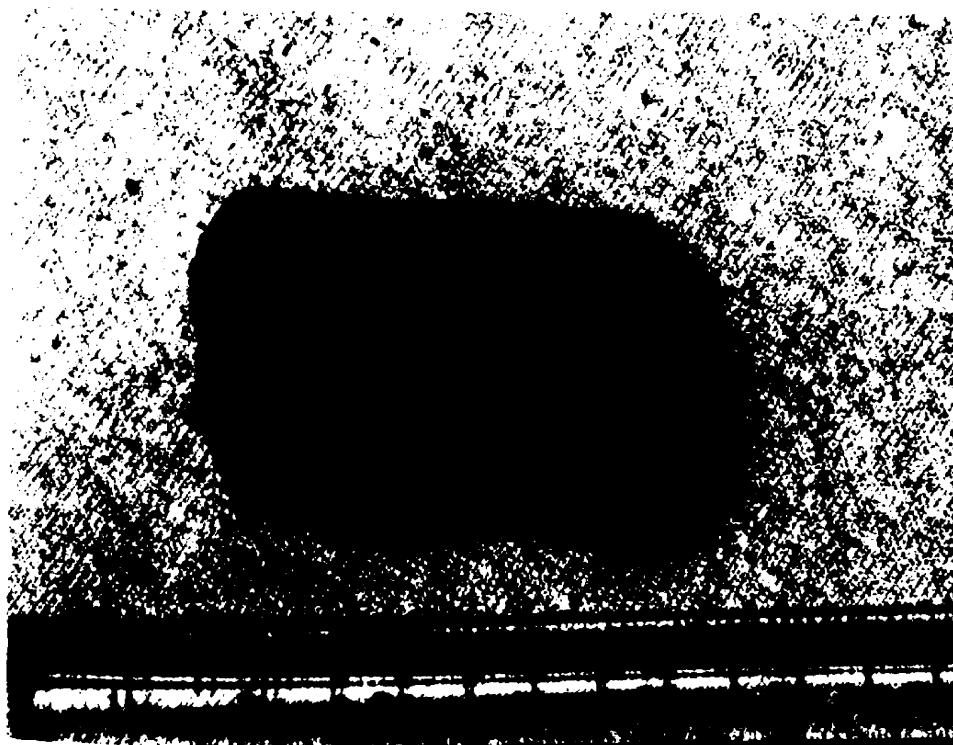


Single *akṣara* on pot sherd (sf 16520)

Plate 9.10: Inscriptions and graffiti



Other letter-like graffiti on pot sherd (sf 16364)



Other letter-like graffiti on pot sherd (sf 16168)

Plate 9.11: Inscriptions and graffiti

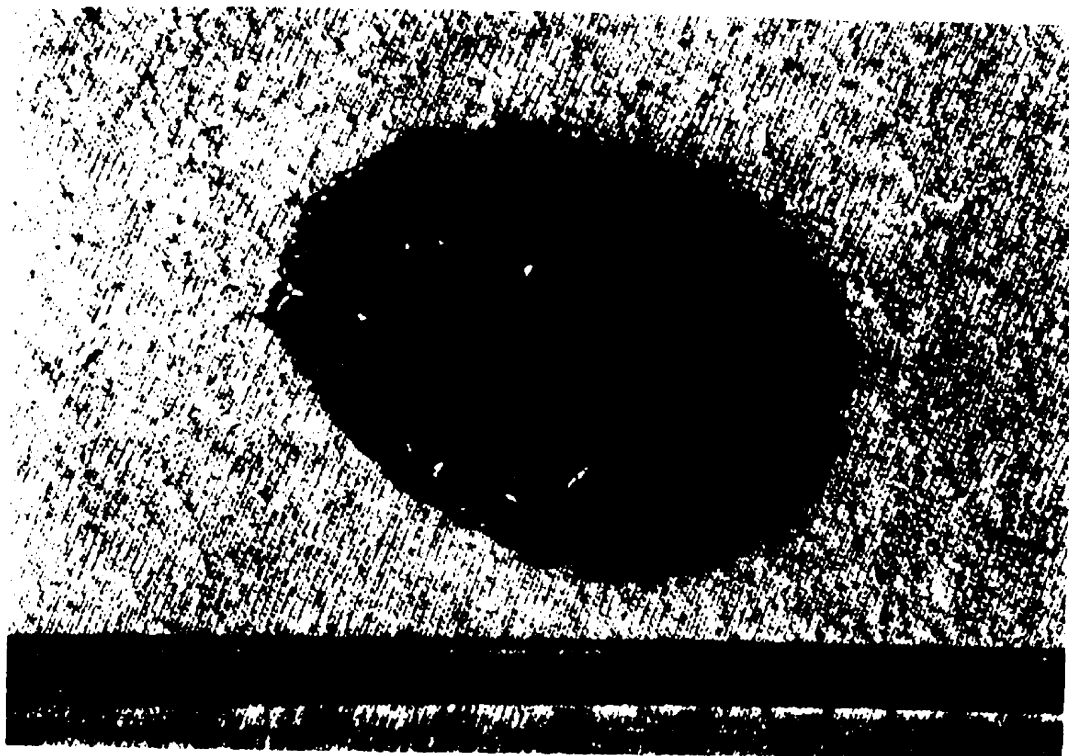


Goldsmith's mould with inscription (sf 166)

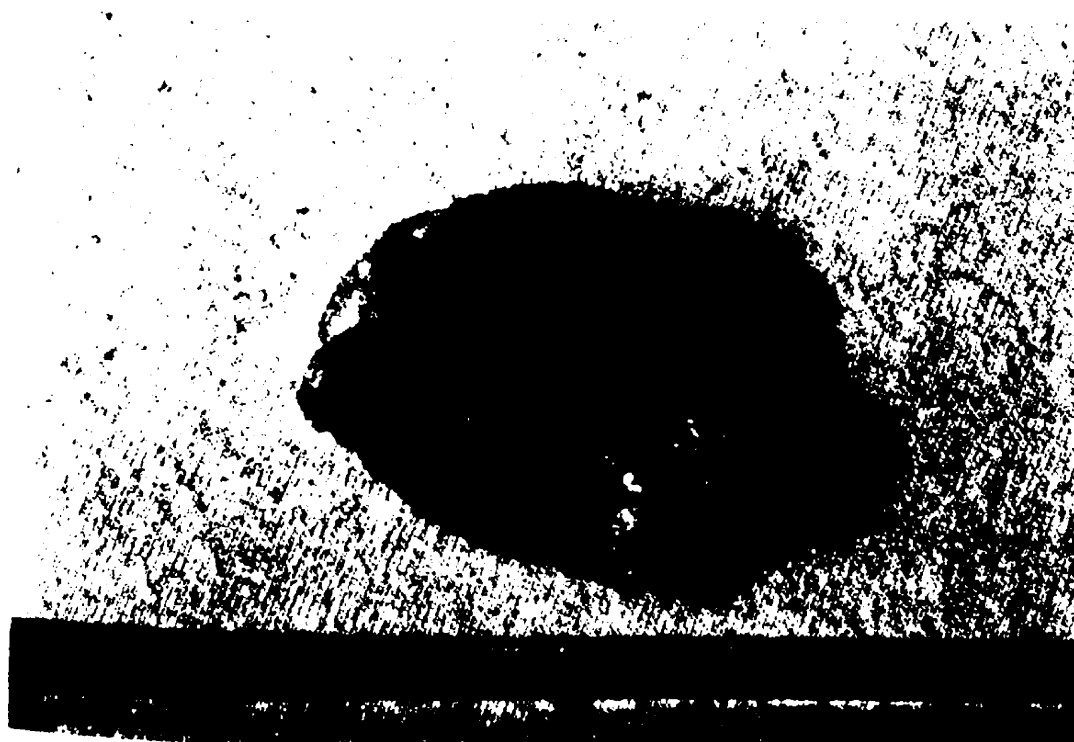


Goldsmith's mould with inscription (sf 166)

Plate 9.12: Inscriptions and graffiti

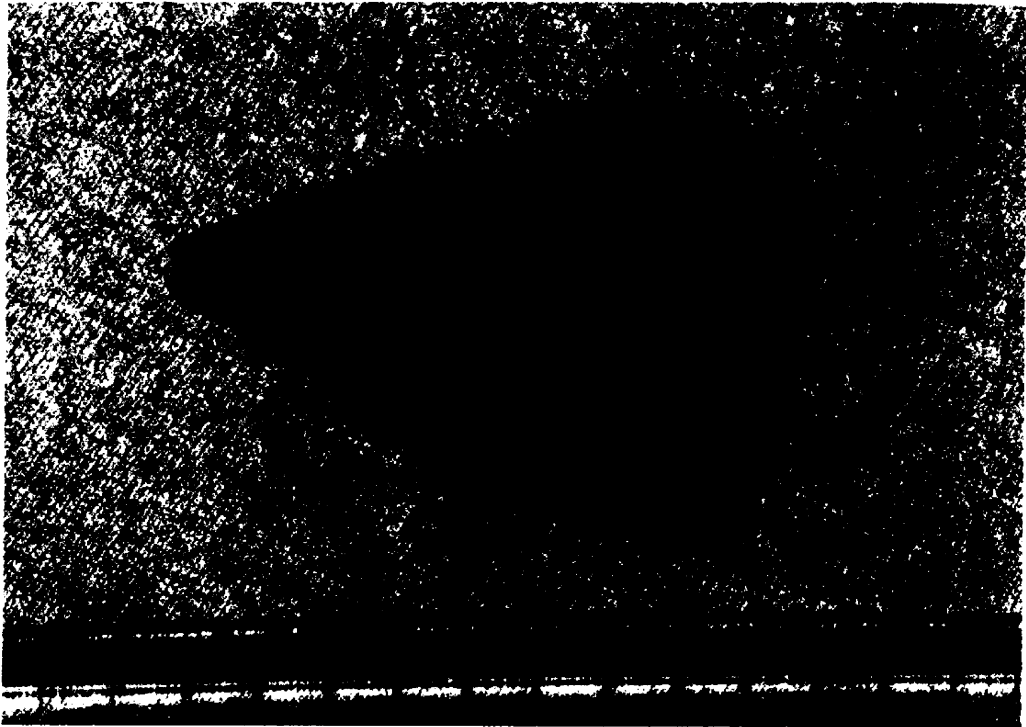


Clay sealing with text (sf 10249)



Clay sealing with text (sf 10249)

Plate 9.13: Inscriptions and graffiti

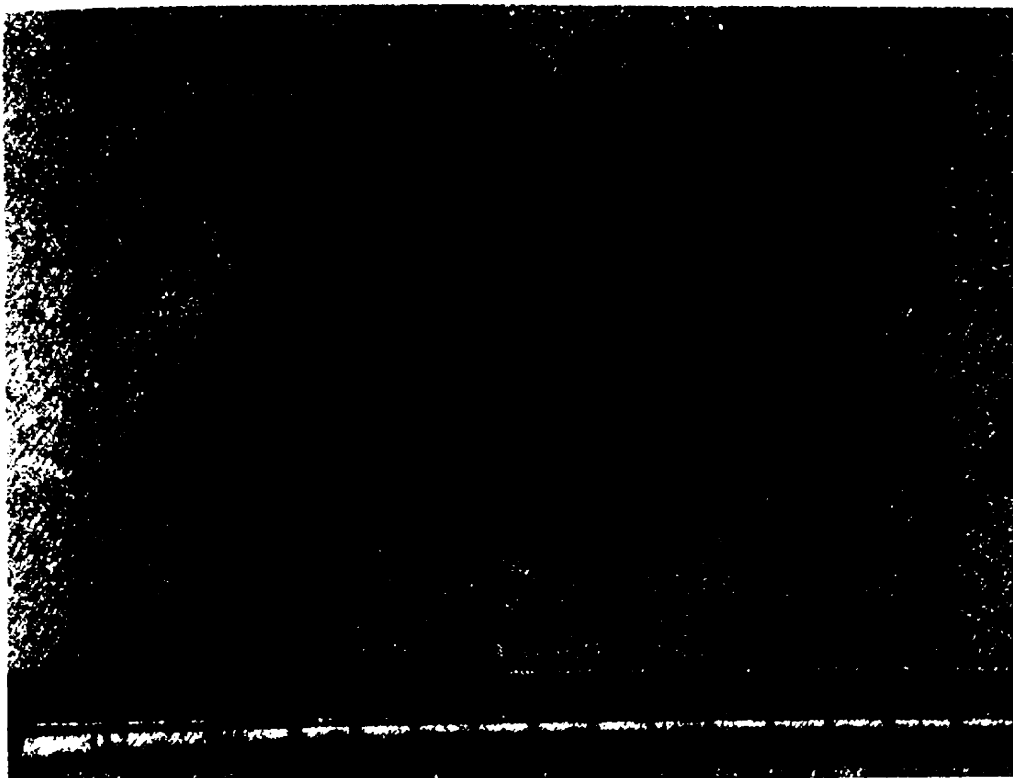


Principal variant of Dominant sign on pot sherd (sf 16346)

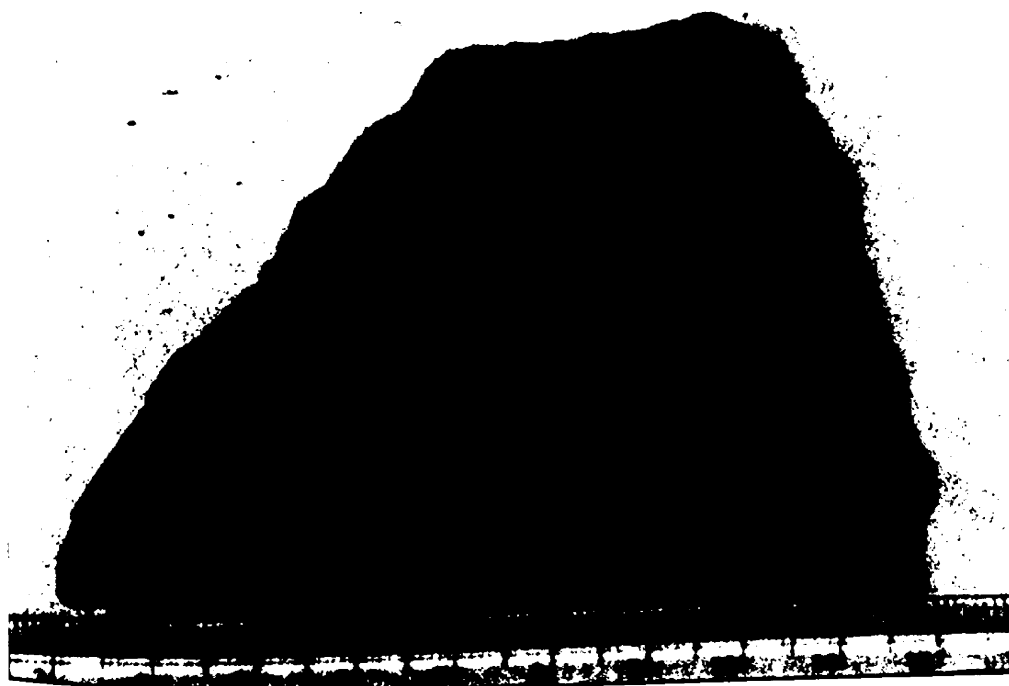


Variant of Dominant sign on pot sherd (sf 16427)

Plate 9.14: Inscriptions and graffiti

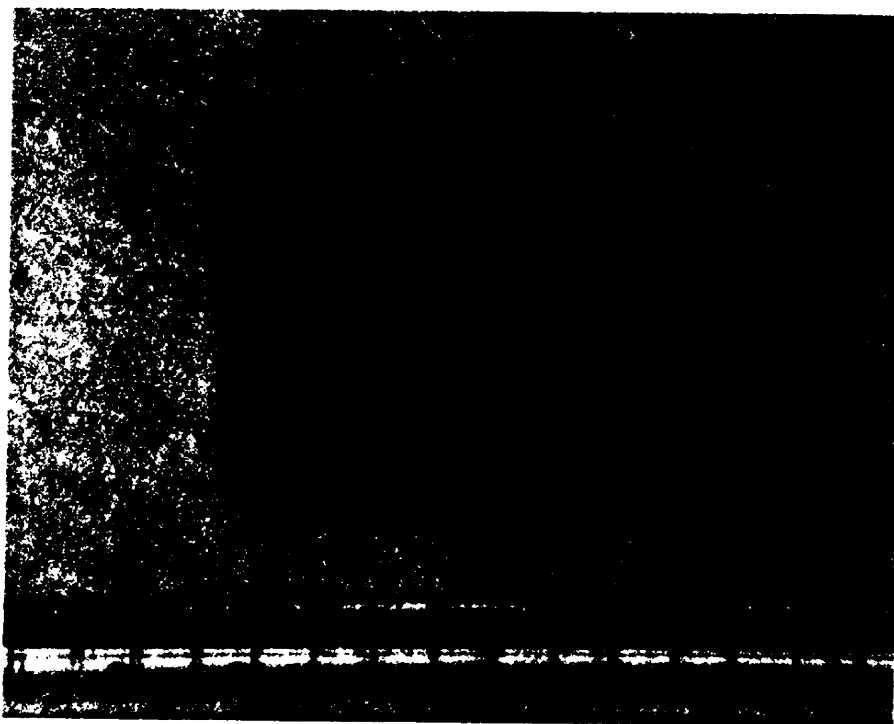


Svastika sign on pot sherd (sf 10476)

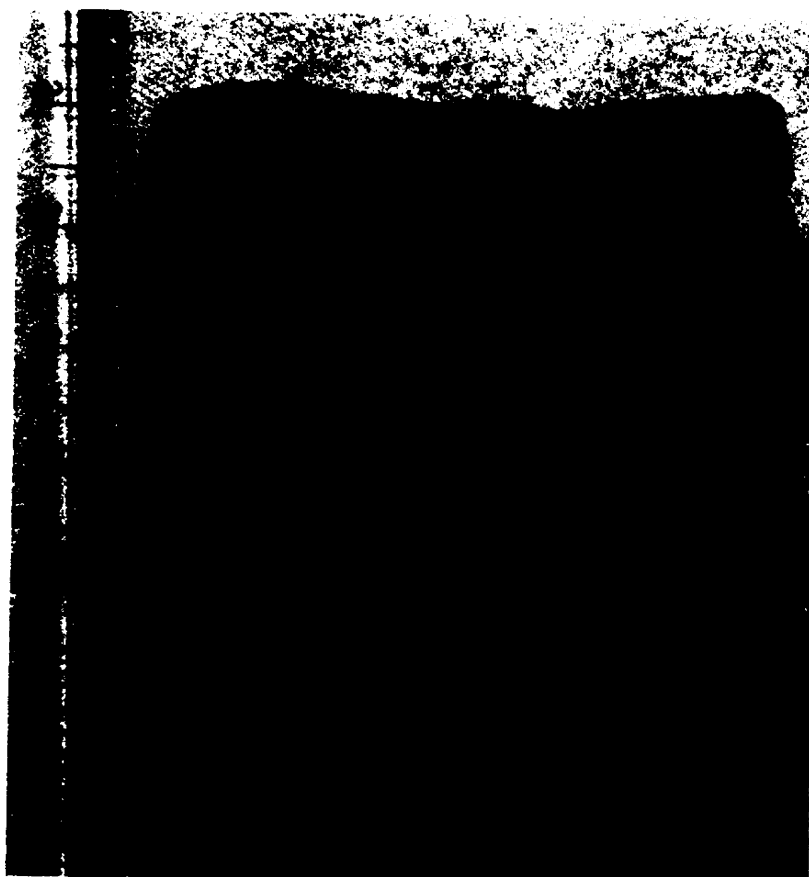


Snake sign on pot sherd (sf 16156)

Plate 9.15: Inscriptions and graffiti

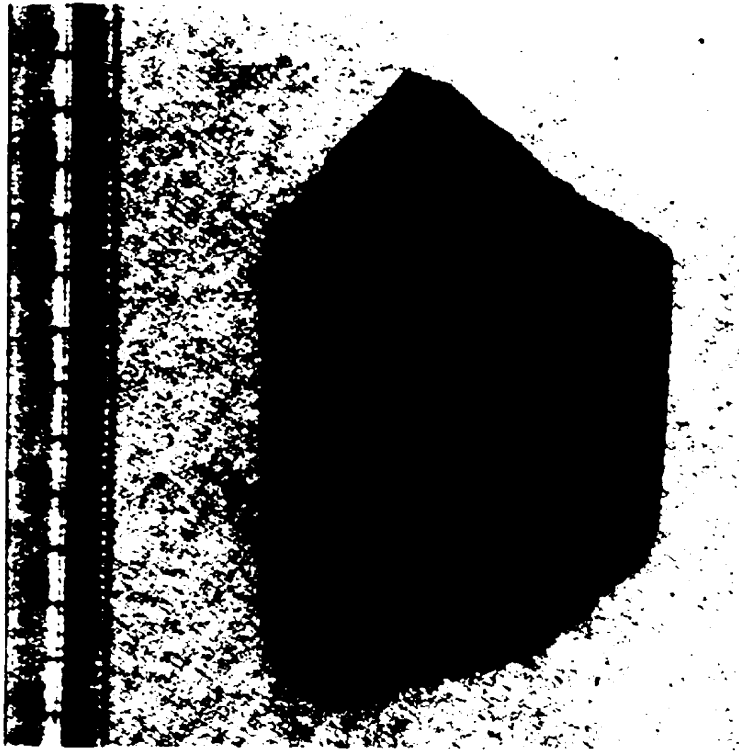


Bow and arrow sign on pot sherd (sf 16144)



Balance or human form sign on pot sherd (sf 16443)

Plate 9.16: Inscriptions and graffiti

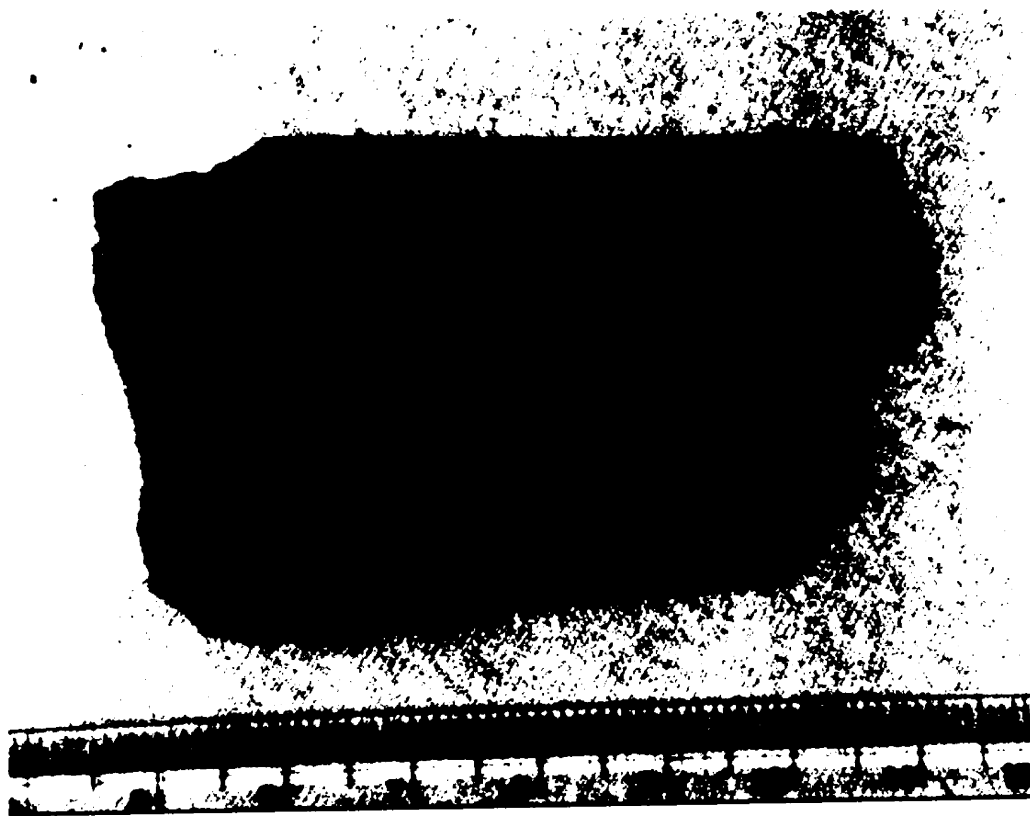


Yantra sign on pot sherd (sf 16456)



House sign on pot sherd (sf 17531)

Plate 9.17: Inscriptions and graffiti



Square form sign on pot sherd (sf 10413)

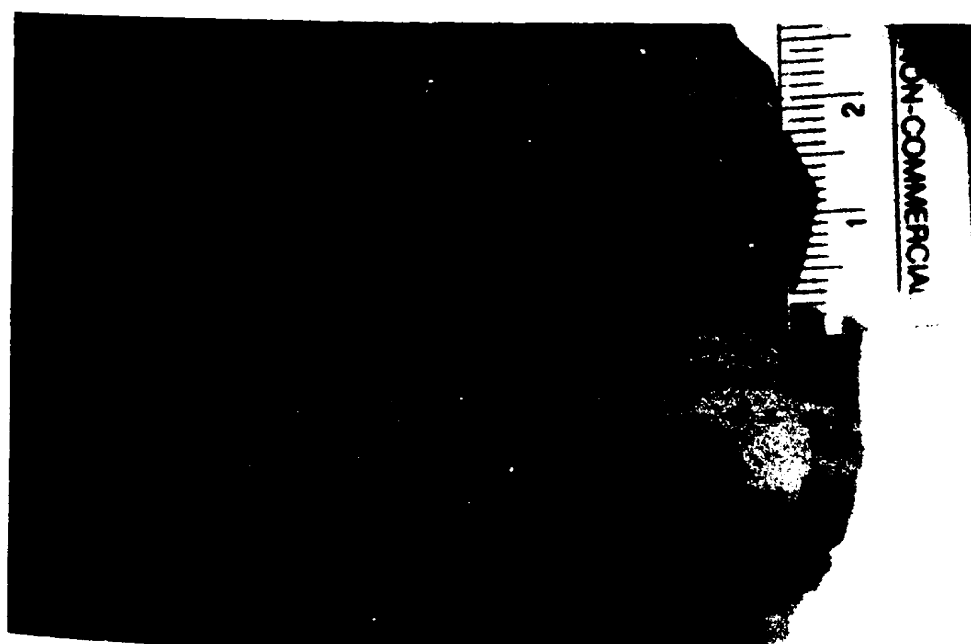


Monumental form on pot sherd (sf 2155)

Plate 9.18: Inscriptions and graffiti



Monumental form on pot sherd (sf 17141)



Single-masted ship sign on pot sherd (sf 10548)



Clay sealing (sf 342)



Clay sealing (sf 342)

Plate 9.20: Inscriptions and graffiti

CHAPTER 10

FAUNAL REMAINS

*Ruth Young, Robin Coningham, Kalum Nalinda,
Jude Perera and Hafeez Khan*

10.1 Introduction

The long and intensive occupation of Anuradhapura has resulted in a large collection of faunal remains that, by study and analysis, can contribute to the understanding of the subsistence patterns and environment of the site. The bone assemblage can be interpreted in terms of meat eaten and, when combined with the archaeobotanical information, can give a fuller picture of diet and consumption. Changes in the faunal assemblage, not only of species present and absent but also in the species profile, may indicate environment and habitat alteration, and possibly social change. Bone and other animal products such as ivory, when present in the form of worked artefacts, may suggest craft and trade activity (see Maps 19 and 20). Evidence for social and environmental change is present in both historical and archaeological data from Anuradhapura; for example the conversion of the island to Buddhism in the middle of the third century (De Silva 1981) or the beginnings of major manipulation of water resources in the latter half of the first millennium BC (Coningham 1999). Moreover, as the archaeological sequence at ASW2 covers the growth of a small Iron Age settlement in the first half of the first millennium BC to a mediaeval imperial metropolis, it is of interest to see whether these changes are discernible within the faunal record. The excavations at ASW2 in 1989, 1990 and 1991 resulted in the collection of a large number of animal bones from the major occupation periods of the site (see Tables 10.1 and 10.2). The majority of the assemblage is held in Sri Lanka, where it has been recorded and identified by Kalum Nalinda Manamendra Arachchi and Halawathage Jude Perera of the Archaeological Survey Department of Sri Lanka. All the material was recovered by hand excavation and sieving. The material available for examination in England consists of teeth from the 1990 excavation, and it has been recorded and estimations of age have been assigned by Ruth Young of the Department of Archaeological Sciences at the University of Bradford. The teeth were assessed using the 'Grant Dental Attrition Age Estimation Method' (Hillson 1986), and the summarized results are given in Table 10.3. Specific ages for individuals have not been attempted, rather the teeth have been categorized according to visible wear patterns from young adults through to elderly. The number of individuals represented by the tooth sample cannot be calculated and

very few deciduous teeth were available for any of the species. Of the material examined in Bradford, the preservation quality appears to be good, although some of the mandibular fragments showed signs of calcification. A number of the teeth showed signs of fresh breaks and cuts, which have been attributed to their recovery. A number of small finds of organic material such as bone and ivory have also been examined in both Sri Lanka and Bradford.

The dispersed nature of the assemblage, some being stored in Peradeniya on restricted access and some on open access in Anuradhapura, has meant that no sexing has taken place, which would have been of particular interest with regard to the cattle remains, and the indication this would have given of the nature of the herds managed. Ageing has only been possible on the teeth available from the 1990 season, which can give a general indication of age structure for the contexts and periods excavated during that time, but without information from other bone sources this is necessarily limited in reliability. Although cut marks have been noted on a number of the bones, these are not sufficient to allow us to reconstruct possible butchering practices. Evidence for burning and other post-slaughter activities was not forthcoming. Table 10.2 gives the total numbers of bones recovered from ASW2 by period. The overall bone count and weight increases from period J to peak in period I, then decreases again in periods G and H, but not to the level of J. Phase I3 contains the greatest bone count and weight of any single phase, and more than 50 per cent of the total bone count occurs between phases I6 and I3. It may be that the locality of ASW2 during phase I3, being unoccupied by structures, was being used as a waste disposal area. The bone count for periods F to A is much lower in total than that from J to H. The overall trend is one of increase in quantity to period I, then a steady decline to period C, D & E, when numbers rise again. This rise in D is followed by a further increase to period B. The overall decline in bone numbers from period I onwards could perhaps be explained by a decrease in population numbers at ASW2, a change in the function of areas excavated or in rubbish disposal or slaughter patterns. The important collection of ivory and bone objects recovered from trench ASW2 is discussed below in section 10.3.1.18.

10.2 Major species

The *Bos*, *Axis*, *Sus* and *Parreysia* species present together account for almost 90 per cent of the total faunal assemblage at ASW2 and so provide the basis for quantitative analysis. Table 10.2 gives the bone counts of the four major species by period. The other species are found in numbers too small to examine meaningful trends and distribution but can be examined in terms of the significance of their presence or absence. The four major species represented at ASW2 show a similar overall trend of increase in numbers from period J to peak in period I, then decline in periods G and H, with two further, lower peaks in D and B; however, the numbers of bone for each species in period G is still greater than in period J. The decline from period I onwards may indicate a change in the dispersal of faunal remains or an increase in alternative food sources in addition to the four main species. Another possible explanation for this total decline in bone numbers following period I may be that there was a move towards vegetarianism accompanying the conversion to Buddhism,

and the associated doctrine of not killing animals. Although the overall quantity of cattle bone at ASW2 increases over four times between periods J and I, as a percentage the number drops. This may be the result of increased population pressure, or perhaps changes in attitude to beef. The marked increase in wild pig numbers may be a result of habitat change B either an increase in preferred marshy areas with the increase in irrigation, or perhaps suitable habitats being destroyed as the city's hinterland expanded, exposing the animals to human contact. The very large increase in pig bone numbers from period J through to period G does suggest that consumption was occurring and, given the taboo status of pig, this may indicate an alteration in attitude to taboo animals. The species that best sustains increase over the whole time span examined is deer, and this may be because it was not a taboo animal and that, as a wild animal, it was being hunted both for sport and for meat (P.E.P. Deraniyagala 1972).

10.2.1 *Axis axis ceylonesis* (Ceylon spotted deer)

Axis accounts for approximately one eighth of the species bone count in J, one fifth of the bone count in I, and nearly one quarter in G and H. The percentage of the assemblage that *Axis* represents increases also, from being only 13.6 per cent in J to 39.1 per cent in G. This rise is in direct contrast to the decrease in *Bos* overall figures. *Axis* also dominates the assemblage in the later periods, only being exceeded by *Bos* in period H. *Axis axis ceylonesis* is a wild species, inhabiting open jungle in lowland areas and the foothills of the dry zone (Banks and Banks 1986). That it has been found in such numbers throughout all periods examined at ASW2 is an indication both of the importance of hunting and of *Axis* as a central source of meat (Deraniyagala 1972; Deraniyagala 1992: 358). The bone numbers show an overall general decline, in line with numbers of the whole assemblage, but *Axis* remains important within the whole assemblage. Given the overall bone quantity present for *Axis*, it can be suggested that the animals were probably not being hunted for sport purposes alone but that their main contribution was as a food source.

It is an ideal ungulate to hunt as it is the only deer species among those found at ASW2 that is found in herds, sometimes of up to 100 animals, and is diurnal in its feeding habits, tending to graze in open lowland areas (Banks and Banks 1986; Deraniyagala 1992: 373). *Axis* bones have been recovered and identified from many sites, including other parts of Anuradhapura, in Sri Lanka. This has been interpreted as evidence of the importance of hunting and of this particular species due to its abundance and accessibility (Deraniyagala 1992: 375). Age estimations for *Axis* for periods J, I, G and H are hampered by a lack of teeth available for ageing from period J. However, the overwhelming majority of teeth that can be aged for *Axis* are in the young adult or adult categories, suggesting that these were being selected over older ageing and elderly adults, particularly in periods G and H. Although the total bone numbers for *Axis* decrease from period I to G and H, this increase in the young adult and adult animals may indicate deliberate selection when hunting is taking place.

Context: 4 Stratigraphic Phase: CXIV
No. of fragments: 1 Weight: 16.7g
Identification and comments: M2, chipped, adult

Context: 9 Stratigraphic Phase: CVI
No. of fragments: 1 Weight: 2.4g
Identification and comments: P4, adult

Context: 9 Stratigraphic Phase: CVI
No. of fragments: 1 Weight: 3.2g
Identification and comments: M1, adult

Context: 17 Stratigraphic Phase: CXIII
No. of fragments: 1 Weight: 4.8g
Identification and comments: M1/2, young adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 5.7g
Identification and comments: M3, lower, adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 6.8g
Identification and comments: M1, ageing adult

Context: 9 Stratigraphic Phase: CVI
No. of fragments: 1 Weight: 5.4g
Identification and comments: P4, lower, adult

Context: 9 Stratigraphic Phase: CVI
No. of fragments: 1 Weight: 4.7g
Identification and comments: P4, maxilla, adult

Context: 14 Stratigraphic Phase: CII
No. of fragments: 1 Weight: 5.8g
Identification and comments: M1, young adult

Context: 17 Stratigraphic Phase: CXIII
No. of fragments: 1 Weight: 8.6g
Identification and comments: M2, young adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 2.8g
Identification and comments: P4, adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 2.9g
Identification and comments: M fragment

Faunal Remains

Context: 27 No. of fragments: 1 Weight: 4.7g Identification and comments: M fragment	Context: 41 No. of fragments: 1 Weight: 3.1g Identification and comments: P3, mandible, young adult
Context: 41 No. of fragments: 1 Weight: 4.5g Identification and comments: M1, young adult	Context: 41 No. of fragments: 1 Weight: 3.5g Identification and comments: M1, broken, young adult
Context: 41 No. of fragments: 1 Weight: 2.5g Identification and comments: M fragment	Context: 41 No. of fragments: 1 Weight: 18.4g Identification and comments: M1, P4, mandible, young adult
Context: 41 No. of fragments: 1 Weight: 14.0g Identification and comments: P1, P2, mandible, young adult	Context: 41 No. of fragments: 1 Weight: 3.1g Identification and comments: M2, broken
Context: 41 No. of fragments: 1 Weight: 2.2g Identification and comments: M, broken	Context: 41 No. of fragments: 1 Weight: 33.5g Identification and comments: M2, M1, P4, mandible, adult
Context: 41 No. of fragments: 1 Weight: 3.4g Identification and comments: M, broken	Context: 41 No. of fragments: 1 Weight: 1.1g Identification and comments: M1, adult
Context: 44 No. of fragments: 1 Weight: 1.3g Identification and comments: P4, lower, young adult	Context: 48 No. of fragments: 1 Weight: 6.0g Identification and comments: M3, young adult
Context: 49 No. of fragments: 1 Weight: 8.0g Identification and comments: M2, young adult	Context: 51 No. of fragments: 1 Weight: 1.3g Identification and comments: P3, young adult
Context: 56 No. of fragments: 1 Weight: 1.7g Identification and comments: P4, ageing adult	Context: 87 No. of fragments: 1 Weight: 4.8g Identification and comments: M1, young adult
Context: 87 No. of fragments: 1 Weight: 4.7g Identification and comments: M3, adult	Context: 87 No. of fragments: 1 Weight: 5.8g Identification and comments: M3, young adult
Context: 88 No. of fragments: 1 Weight: 2.8g Identification and comments: P4, adult	Context: 88 No. of fragments: 1 Weight: 0.9g Identification and comments: P4, broken
Context: 92 No. of fragments: 1 Weight: 13.2g Identification and comments: M, broken, mandible	Context: 111 No. of fragments: 1 Weight: 6.9g Identification and comments: M1, adult
Context: 111 No. of fragments: 1 Weight: 14.6g Identification and comments: M2, young adult	Context: 125 No. of fragments: 1 Weight: 2.7g Identification and comments: P4, young adult
Context: 130 No. of fragments: 1 Weight: 3.3g Identification and comments: M1/2, adult	Context: 149 No. of fragments: 1 Weight: 3.2g Identification and comments: M1, adult
Context: 149 No. of fragments: 1 Weight: 0.9g Identification and comments: P4, adult	Context: 205 No. of fragments: 1 Weight: 11.9g Identification and comments: M1, adult
Context: 222 No. of fragments: 1 Weight: 7.2g Identification and comments: M2, adult	Context: 256 No. of fragments: 1 Weight: 3.1g Identification and comments: M1/2, young adult
Context: 256 No. of fragments: 1 Weight: 1.0g Identification and comments: 1	Context: 266 No. of fragments: 1 Weight: 1.2g Identification and comments: M2, M1, mandible, young adult
Context: 266 No. of fragments: 1 Weight: 6.8g Identification and comments: M2, young adult	Context: 266 No. of fragments: 1 Weight: 1.3g Identification and comments: P4, ageing adult
Context: 266 No. of fragments: 1 Weight: 5.4g Identification and comments: M1, adult	Context: 283 No. of fragments: 1 Weight: 5.3g Identification and comments: M1, ageing adult
Context: 285 No. of fragments: 1 Weight: 3.8g	Context: 287 No. of fragments: 1 Weight: 8.1g

Identification and comments: M3, adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.0g
Identification and comments: M1, young adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.7g
Identification and comments: P3, ageing adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.5g
Identification and comments: P3, adult

Context: 301 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.1g
Identification and comments: M1, young adult

Context: 322 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.3g
Identification and comments: M1, young adult

Context: 356 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.6g
Identification and comments: M1, young adult

Context: 365 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 4.5g
Identification and comments: M1, adult

Context: 365 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 2.8g
Identification and comments: P4, young adult

Context: 365 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 6.1g
Identification and comments: M1, young adult

Context: 368 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 2.2g
Identification and comments: P3, adult

Context: 399 Stratigraphic Phase: XCI
No. of fragments: 2 Weight: 5.3g
Identification and comments: M1/2, adult

Context: 406 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 42g
Identification and comments: M3, broken, adult

Context: 427 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 2.5g
Identification and comments: M3, young adult

Context: 487 Stratigraphic Phase: LXXXI
No. of fragments: 1 Weight: 3.7g
Identification and comments: M1, young adult

Context: 494 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 10.0g
Identification and comments: M1, P4, mandible, adult

Context: 600 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1g
Identification and comments: carpal

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: tibia - left

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 10g
Identification and comments: thoracic vertebra

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 7g
Identification and comments: pelvis - right

Identification and comments: M1, ageing adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.4g
Identification and comments: M3, elderly adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.3g
Identification and comments: P4, adult

Context: 301 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 4.2g
Identification and comments: C

Context: 320 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 6.8g
Identification and comments: M2, young adult

Context: 332 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 4.7g
Identification and comments: M2, ageing adult

Context: 360 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.7g
Identification and comments: M1, young adult

Context: 365 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 2.9g
Identification and comments: M1/2, adult

Context: 365 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 10.0g
Identification and comments: M2, M1, mandible, ageing adult

Context: 368 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 6.3g
Identification and comments: M2, ageing adult

Context: 379 Stratigraphic Phase: XCII
No. of fragments: 1 Weight: 11.0g
Identification and comments: P4, mandible, ageing adult

Context: 406 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 18.9g
Identification and comments: M1, P4, mandible, adult

Context: 425 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 1.0g
Identification and comments: DP3

Context: 468 Stratigraphic Phase: LXXXI
No. of fragments: 1 Weight: 2.2g
Identification and comments: P3, young adult

Context: 494 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 4.2g
Identification and comments: M1, young adult

Context: 494 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 6g
Identification and comments: calcaneus - right

Context: 600 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5g
Identification and comments: lumbar vertebra

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: mandible - left

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 5g
Identification and comments: radius - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: tibia - left

Faunal Remains

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 19g
Identification and comments: scapula - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: femur - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 7g
Identification and comments: pelvis - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 37g
Identification and comments: antler

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 36g
Identification and comments: humerus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 10g
Identification and comments: frontal - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g
Identification and comments: maxilla

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 10g
Identification and comments: maxilla - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 16g
Identification and comments: humerus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 8g
Identification and comments: vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 6g
Identification and comments: femur - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g
Identification and comments: calcaneus - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g
Identification and comments: femur - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 8g
Identification and comments: ulna - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 1g
Identification and comments: maxilla - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: maxilla

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: thoracic vertebra

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - left

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 10g
Identification and comments: radius

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 21.0g
Identification and comments: M1, right mandible, young adult

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 7g
Identification and comments: temporal - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 2 Weight: 12g
Identification and comments: mandible - left, right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 26g
Identification and comments: femur - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: pelvis - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: astragalus - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 7g
Identification and comments: femur - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 11g
Identification and comments: astragalus - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: radius - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 16g
Identification and comments: axis

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 38g
Identification and comments: mandible

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: caudal vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 26g
Identification and comments: femur - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 11g
Identification and comments: astragalus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: radius - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 16g

Identification and comments: calcaneus - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 22g
Identification and comments: mandible - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g
Identification and comments: caudal vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 36g
Identification and comments: antler

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 7g
Identification and comments: temporal - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 2 Weight: 12g
Identification and comments: mandible - left, right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 12g
Identification and comments: pelvis - right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 21g
Identification and comments: scapula - left

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 20g
Identification and comments: radius - right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: astragalus - with cut marks

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 2 Weight: 21g
Identification and comments: scapula - left

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 7g
Identification and comments: femur - right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 606 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 7g
Identification and comments: phalanx

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 5.0g
Identification and comments: M3, M2, M1, P4, P3, mandible, young adult

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 5.6g
Identification and comments: M1, young adult

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra - with cut marks

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 32g

Identification and comments: vertebra

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 8g
Identification and comments: ulna - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 38g
Identification and comments: femur - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 6g
Identification and comments: femur - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 37g
Identification and comments: humerus - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 10g
Identification and comments: frontal - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 3g
Identification and comments: maxilla

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 16g
Identification and comments: humerus - right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 15g
Identification and comments: metatarsal

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: vertebra

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 15g
Identification and comments: metatarsal

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 20g
Identification and comments: radius - right

Context: 606 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 10g
Identification and comments: metatarsal

Context: 609 Stratigraphic Phase: LXIX
No. of fragments: 1 Weight: 6.8g
Identification and comments: DP4

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 2 Weight: 1.5g
Identification and comments: P4, adult

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 15.2g
Identification and comments: P1, mandible

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: temporal

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 20g

Faunal Remains

Identification and comments: mandible - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 5g
Identification and comments: ulna - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: temporal - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 30g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: tibia - left - with cut marks

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: tibia - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: mandible - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: thoracic vertebra

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 4g
Identification and comments: maxilla - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: femur

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 8g
Identification and comments: tarsal - right

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 5g
Identification and comments: lumbar vertebra

Context: 630 Stratigraphic Phase: LXXVI
No. of fragments: 1 Weight: 18g
Identification and comments: tibia - left

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 19g
Identification and comments: calcaneus - left

Identification and comments: tibia - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 39g
Identification and comments: mandible

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: mandible

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 5g
Identification and comments: ulna - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: thoracic vertebra

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 2 Weight: 11g
Identification and comments: femur - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 4g
Identification and comments: nasal - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: femur - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 30g
Identification and comments: humerus

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: tibia - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 1.5g
Identification and comments: P4, ageing adult

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 5g
Identification and comments: lumbar vertebra

Context: 616 Stratigraphic Phase: LXX
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra - with cut marks

Context: 630 Stratigraphic Phase: LXXVI
No. of fragments: 1 Weight: 18g
Identification and comments: tibia - left

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 21g
Identification and comments: tibia - left

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 22g
Identification and comments: mandible - left

Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 22g Identification and comments: calcaneus - right	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 46g Identification and comments: tibia - left
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 6g Identification and comments: pelvis - left	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 35g Identification and comments: tibia - right
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 4g Identification and comments: mandible - left	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 21g Identification and comments: cervical vertebra
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 21g Identification and comments: lumbar vertebra	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 4g Identification and comments: caudal vertebra
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 14g Identification and comments: pelvis - left	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 15g Identification and comments: pelvis - right
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 4g Identification and comments: phalanx	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 10g Identification and comments: thoracic vertebra
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 6g Identification and comments: pelvis - left	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 22g Identification and comments: femur - right
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 21g Identification and comments: tibia - left	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 29g Identification and comments: calcaneus - left
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 22g Identification and comments: calcaneus - right	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 46g Identification and comments: tibia - left
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 35g Identification and comments: tibia - right	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 4g Identification and comments: mandible - left
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 21g Identification and comments: cervical vertebra - with cut marks	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 3 Weight: 21g Identification and comments: lumbar vertebra
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: Weight: 4g Identification and comments: caudal vertebra	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 14g Identification and comments: pelvis - left
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 15g Identification and comments: pelvis - right	Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 4g Identification and comments: phalanx
Context: 632 Stratigraphic Phase: LXXXIII No. of fragments: 1 Weight: 10g Identification and comments: thoracic vertebra	Context: 634 Stratigraphic Phase: LXIX No. of fragments: 1 Weight: 45g Identification and comments: humerus
Context: 634 Stratigraphic Phase: LXIX No. of fragments: 1 Weight: 17g Identification and comments: scapula - left	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 6.4g Identification and comments: M3, young adult
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 5.1g Identification and comments: M2, young adult	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 22g Identification and comments: astragalus - left
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 7g Identification and comments: maxilla - left	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 40g Identification and comments: scapula - right
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 45g Identification and comments: humerus - right	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 3 Weight: 27g Identification and comments: mandible - left, right
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 6g Identification and comments: frontal - right	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 14g Identification and comments: axis

Faunal Remains

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: calcaneus - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: radius - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 15g
Identification and comments: tibia - left

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 45g
Identification and comments: humerus - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 6g
Identification and comments: frontal - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: calcaneus - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: radius - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 15g
Identification and comments: tibia - left

Context: 638 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 18g
Identification and comments: vertebra

Context: 642 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 9g
Identification and comments: thoracic vertebra

Context: 659 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: humerus - right

Context: 659 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 9g
Identification and comments: tibia

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 9g
Identification and comments: tibia

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 3g
Identification and comments: femur - left

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 40g
Identification and comments: atlas - left

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 21g
Identification and comments: radius - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 7g
Identification and comments: frontal

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 25g
Identification and comments: scapula - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 24g
Identification and comments: mandible - left

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 2 Weight: 40g
Identification and comments: scapula - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 3 Weight: 27g
Identification and comments: mandible - left, right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: axis vertebra

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 25g
Identification and comments: scapula - right

Context: 635 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 22g
Identification and comments: astragalus - left

Context: 638 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 18g
Identification and comments: vertebra - with cut marks

Context: 640 Stratigraphic Phase: LXIX
No. of fragments: 1 Weight: 7.2g
Identification and comments: M3, adult

Context: 642 Stratigraphic Phase: LXXIII
No. of fragments: 1 Weight: 9g
Identification and comments: thoracic vertebra

Context: 659 Stratigraphic Phase: LXXII
No. of fragments: 2 Weight: 22g
Identification and comments: ulna - left, right

Context: 659 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: scapula - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 9g
Identification and comments: vertebra

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - left

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 2 Weight: 9g
Identification and comments: vertebra

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 34g
Identification and comments: parietal - right

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 20g
Identification and comments: cervical vertebra

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 8g
Identification and comments: femur - left

Context: 663 No. of fragments: 1 Weight: 7g Identification and comments: frontal	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 1 Weight: 3g Identification and comments: mandible - right	Stratigraphic Phase: LXVI
Context: 663 No. of fragments: 1 Weight: 5g Identification and comments: atlas	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 1 Weight: 40g Identification and comments: parietal - left	Stratigraphic Phase: LXVI
Context: 663 No. of fragments: 1 Weight: 9g Identification and comments: humerus	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 2 Weight: 22g Identification and comments: ulna - left, right	Stratigraphic Phase: LXVI
Context: 663 No. of fragments: 1 Weight: 12g Identification and comments: scapula - right	Stratigraphic Phase: LXVI	Context: 670 No. of fragments: 1 Weight: 6.5g Identification and comments: M fragment	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 13.0g Identification and comments: M1, young adult	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 6g Identification and comments: frontal - left	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 40g Identification and comments: femur - right	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 30g Identification and comments: tibia - left	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 13g Identification and comments: scapula - left	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 7g Identification and comments: atlas	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 6g Identification and comments: radius - right	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 40g Identification and comments: femur - right	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 30g Identification and comments: tibia - left	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 16g Identification and comments: parietal - left	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 13g Identification and comments: scapula - left	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 6g Identification and comments: radius - right	Stratigraphic Phase: LXIV
Context: 670 No. of fragments: 1 Weight: 7g Identification and comments: atlas vertebra	Stratigraphic Phase: LXIV	Context: 670 No. of fragments: 1 Weight: 6g Identification and comments: frontal - right	Stratigraphic Phase: LXIV
Context: 684 No. of fragments: 1 Weight: 45g Identification and comments: humerus	Stratigraphic Phase: LXVII	Context: 684 No. of fragments: 1 Weight: 17g Identification and comments: scapula - left	Stratigraphic Phase: LXVII
Context: 693 No. of fragments: 1 Weight: 16g Identification and comments: pelvis - left	Stratigraphic Phase: LXXXIV	Context: 693 No. of fragments: 1 Weight: 5g Identification and comments: calcaneus - right	Stratigraphic Phase: LXXXIV
Context: 693 No. of fragments: 1 Weight: 4g Identification and comments: mandible - left	Stratigraphic Phase: LXXXIV	Context: 693 No. of fragments: 1 Weight: 16g Identification and comments: pelvis - left	Stratigraphic Phase: LXXXIV
Context: 693 No. of fragments: 1 Weight: 5g Identification and comments: calcaneus - right	Stratigraphic Phase: LXXXIV	Context: 693 No. of fragments: 1 Weight: 4g Identification and comments: mandible - left	Stratigraphic Phase: LXXXIV
Context: 697 No. of fragments: 1 Weight: 8g Identification and comments: astragulus - right	Stratigraphic Phase: LXIV	Context: 697 No. of fragments: 3 Weight: 20g Identification and comments: temporal - left, right	Stratigraphic Phase: LXIV
Context: 697 No. of fragments: 1 Weight: 35g Identification and comments: parietal	Stratigraphic Phase: LXIV	Context: 697 No. of fragments: 1 Weight: 6g Identification and comments: mandible - left	Stratigraphic Phase: LXIV
Context: 697 No. of fragments: 1 Weight: 8g Identification and comments: mandible	Stratigraphic Phase: LXIV	Context: 697 No. of fragments: 1 Weight: 7g Identification and comments: calcaneus - left	Stratigraphic Phase: LXIV
Context: 697 No. of fragments: 1 Weight: 6g Identification and comments: lumbar vertebra	Stratigraphic Phase: LXIV	Context: 697 No. of fragments: 1 Weight: 8g Identification and comments: astragulus - right	Stratigraphic Phase: LXIV
Context: 697 No. of fragments: 3 Weight: 20g	Stratigraphic Phase: LXIV	Context: 697 No. of fragments: 1 Weight: 20g	Stratigraphic Phase: LXIV

Faunal Remains

Identification and comments: temporal - right, left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: mandible

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: Weight: 7g
Identification and comments: calcaneus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 16g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 7.1g
Identification and comments: M3, young adult

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 2.8g
Identification and comments: P4, young adult

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: maxilla - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 33g
Identification and comments: frontal - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 79g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: ulna - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: radius - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: humerus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: astragalus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: calcaneus

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: atlas

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 31g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: mandible

Identification and comments: parietal

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 5.4g
Identification and comments: M2, young adult

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3.2g
Identification and comments: M1, broken, young adult

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: zygomatic - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: Weight: 5g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 65g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: maxilla - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 18g
Identification and comments: tibia - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 36g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 21g
Identification and comments: radius - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: humerus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 2 Weight: 35g
Identification and comments: scapula - right, left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: humerus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 10g
Identification and comments: temporal - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 39g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 48g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: calcaneus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: pelvis - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 3 Weight: 37g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 18g
Identification and comments: tibia - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 36g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 21g
Identification and comments: radius - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: humerus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 3 Weight: 35g
Identification and comments: scapula - left, right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: humerus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 2 Weight: 10g
Identification and comments: temporal - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: calcaneus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - left

Context: 701 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: calcaneus - right

Context: 705 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 707 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 34g
Identification and comments: radius - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: lumbar vertebra - with cut marks

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: atlas - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 18g
Identification and comments: scapula - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 65g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 33g
Identification and comments: frontal - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 2 Weight: 79g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: ulna - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: radius - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: humerus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: astragalus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: calcaneus - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: atlas vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 31g
Identification and comments: mandible - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: astragalus - right

Context: 701 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: ulna - right

Context: 701 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: calcaneus - right

Context: 705 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 707 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 21g
Identification and comments: cervical vertebra - with cut marks

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 23g
Identification and comments: humerus - left

Faunal Remains

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 4g
Identification and comments: zygomatic - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 12g
Identification and comments: radius - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: mandible - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: scapula - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 5g
Identification and comments: calcaneus - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 7g
Identification and comments: radius - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 2 Weight: 30g
Identification and comments: humerus - left, right
Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: scapula - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 5g
Identification and comments: calcaneus - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 19g
Identification and comments: calcaneus - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 7g
Identification and comments: radius - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 4g
Identification and comments: zygomatic - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 12g
Identification and comments: radius - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 30g
Identification and comments: radius - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 52g
Identification and comments: humerus - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 13g
Identification and comments: occipital

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 3g
Identification and comments: zygomatic - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 4g
Identification and comments: femur - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 5g

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: astragalus - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 2 Weight: 30g
Identification and comments: humerus - right, left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: femur

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 14g
Identification and comments: axis

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 19g
Identification and comments: calcaneus - left

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 4g
Identification and comments: pelvis - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 3g
Identification and comments: ulna - left
Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: femur

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 14g
Identification and comments: axis vertebra

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 23g
Identification and comments: humerus - left - with cut marks

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 4g
Identification and comments: pelvis - right

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 10g
Identification and comments: astragalus - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 39g
Identification and comments: mandible - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: femur

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 17g
Identification and comments: pelvis - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 13g
Identification and comments: lumbar vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 4g
Identification and comments: occipital

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 7g
Identification and comments: humerus - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 30g

Identification and comments: mandible - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 52g
Identification and comments: humerus - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 17g
Identification and comments: pelvis - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 2 Weight: 13g
Identification and comments: lumbar vertebrae

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 4g
Identification and comments: occipital

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 7g
Identification and comments: humerus - left

Context: 719 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 7g
Identification and comments: humerus

Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 10g
Identification and comments: occipital - left

Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 10g
Identification and comments: occipital condyle - left

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: femur - right

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 29g
Identification and comments: metacarpal

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: femur - right

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 29g
Identification and comments: metacarpal

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: calcaneus - left

Context: 727 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 19g
Identification and comments: mandible - right

Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 30g
Identification and comments: lumbar vertebra

Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 21g
Identification and comments: scapula - left - with cut marks

Context: 729 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - right

Context: 729 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 13g
Identification and comments: humerus - left

Context: 736 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus

Identification and comments: radius - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 13g
Identification and comments: occipital

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 3g
Identification and comments: zygomatic - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 4g
Identification and comments: femur - left

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: femur

Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 18g
Identification and comments: occipital

Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 9g
Identification and comments: mandible - left

Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 9g
Identification and comments: mandible - left

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: femur - left

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 7g
Identification and comments: vertebra - with cut marks

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: femur - left

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 7g
Identification and comments: vertebra

Context: 726 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: calcaneus - left

Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 21g
Identification and comments: scapula

Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 5g
Identification and comments: parietal

Context: 728 Stratigraphic Phase: LIV
No. of fragments: 2 Weight: 30g
Identification and comments: lumbar vertebrae

Context: 729 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 10g
Identification and comments: metatarsal

Context: 735 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 4g
Identification and comments: premaxilla - right

Context: 736 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus - right

Faunal Remains

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - right

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - right

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 4g
Identification and comments: vertebra

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 9g
Identification and comments: mandible - left

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 4g
Identification and comments: vertebra

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: metapodial

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 20g
Identification and comments: astragalus - right

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: metapodial

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 8g
Identification and comments: phalanx

Context: 752 Stratigraphic Phase: XLI
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra - with cut marks

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 3g
Identification and comments: lumbar vertebra

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 3g
Identification and comments: vertebra

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 8g
Identification and comments: skull

Context: 772 Stratigraphic Phase: XLII
No. of fragments: 1 Weight: 12g
Identification and comments: mandible - left

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 5g
Identification and comments: lumbar vertebra

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 8g
Identification and comments: sacrum

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 28g
Identification and comments: humerus - right

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 32g
Identification and comments: femur - right

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 12g
Identification and comments: scapula - left

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 9g
Identification and comments: mandible - left

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 7g
Identification and comments: radius - left

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - right

Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 7g
Identification and comments: radius - left

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: scapula - left

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: femur - right

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 11g
Identification and comments: tibia - right

Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 9g
Identification and comments: metatarsal - left

Context: 752 Stratigraphic Phase: XLI
No. of fragments: 1 Weight: 4g
Identification and comments: cloven

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 7g
Identification and comments: scapula

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 30g
Identification and comments: metatarsal - left

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 14g
Identification and comments: sacrum - right

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 1g
Identification and comments: scapula

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 2g
Identification and comments: lumbar vertebra

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 8g
Identification and comments: femur - left

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 19g
Identification and comments: scapula - right

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 11g
Identification and comments: tibia - left

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 26g
Identification and comments: humerus - left

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 14g
Identification and comments: radius - left

Context: 789 Stratigraphic Phase: LIII No. of fragments: 6 Weight: 24g Identification and comments: metatarsal – left	Context: 790 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 5g Identification and comments: tibia - left
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 22g Identification and comments: calcaneus - right	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 1g Identification and comments: mandible - left
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 18g Identification and comments: pelvis- right	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 33g Identification and comments: calcaneus - right
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 39g Identification and comments: metatarsal – left	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 2g Identification and comments: phalanx
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 11g Identification and comments: phalanx	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 6g Identification and comments: mandible – right
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 19g Identification and comments: calcaneus - left	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 3g Identification and comments: astragalus - left
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 9g Identification and comments: metatarsal	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 3g Identification and comments: mandible - right
Context: 798 Stratigraphic Phase: XLVI No. of fragments: 1 Weight: 34g Identification and comments: metatarsal	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 2 Weight: 67g Identification and comments: scapula - right
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 14g Identification and comments: astragalus - right	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 75g Identification and comments: humerus - left
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 10g Identification and comments: phalanx	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 45g Identification and comments: thoracic vertebra
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 17g Identification and comments: metacarpal	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 9g Identification and comments: occipital
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 7g Identification and comments: femur	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 11g Identification and comments: axis vertebra
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 5 Weight: 44g Identification and comments: lumbar vertebra	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 7g Identification and comments: pelvis - right
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 25g Identification and comments: femur - right	Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 3g Identification and comments: phalanx
Context: 831 Stratigraphic Phase: XXXIX No. of fragments: 1 Weight: 7g Identification and comments: phalanx	Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 28g Identification and comments: mandible - left
Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 5g Identification and comments: scapula - right	Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 70g Identification and comments: femur - left
Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 69g Identification and comments: tibia - right	Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 21g Identification and comments: lumbar vertebra
Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 12g Identification and comments: femur	Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 33g Identification and comments: tibia - right
Context: 834 Stratigraphic Phase: XXXVII No. of fragments: 1 Weight: 8g Identification and comments: atlas vertebra	Context: 837 Stratigraphic Phase: XXXV No. of fragments: 1 Weight: 2.9g Identification and comments: M2, broken, elderly adult
Context: 837 Stratigraphic Phase: XXXV No. of fragments: 1 Weight: 11.5g	Context: 837 Stratigraphic Phase: XXXV No. of fragments: 1 Weight: 2.8g

Faunal Remains

Identification and comments: M3, mandible, young adult

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 2.8g
Identification and comments: M1, adult

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 10.1g
Identification and comments: P4, ageing adult

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 58g
Identification and comments: femur - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 32g
Identification and comments: calcaneus - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 22g
Identification and comments: femur - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: radius - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 14g
Identification and comments: pelvis - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 8g
Identification and comments: lumbar vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 2g
Identification and comments: mandible - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 7g
Identification and comments: thoracic vertebra - cut marks

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 6g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 10g
Identification and comments: humerus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 5g
Identification and comments: thoracic vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 18g
Identification and comments: metatarsal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 62g
Identification and comments: metatarsal - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 30g
Identification and comments: calcaneus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 19g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 32g
Identification and comments: humerus - right

Identification and comments: M3, adult

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 4.2g
Identification and comments: M2, adult

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: astragalus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 14g
Identification and comments: radius - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 11g
Identification and comments: lumbar vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: tibia - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 9g
Identification and comments: femur - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 20g
Identification and comments: calcaneus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 10g
Identification and comments: ulna - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 13g
Identification and comments: occipital - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 21g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 8g
Identification and comments: proximal phalanges

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 17g
Identification and comments: metatarsal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 10g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 18g
Identification and comments: metacarpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 13g
Identification and comments: metatarsal - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 30g
Identification and comments: metacarpal - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 30g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 32g
Identification and comments: astragalus - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 13g
Identification and comments: radius - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: radius - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 36g
Identification and comments: femur - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 3 Weight: 17g
Identification and comments: phalanges

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 7g
Identification and comments: atlas vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 5g
Identification and comments: ulna - left - with cut marks

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 8g
Identification and comments: frontal - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 7g
Identification and comments: humerus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 43g
Identification and comments: humerus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 49g
Identification and comments: mandible - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 9g
Identification and comments: metacarpal or metatarsal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra

Context: 843 Stratigraphic Phase: XLII
No. of fragments: 1 Weight: 6g
Identification and comments: humerus - right

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 24g
Identification and comments: femur

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 7g
Identification and comments: metapodial

Context: 856 Stratigraphic Phase: XXXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: occipital

Context: 871 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 11g
Identification and comments: thoracic vertebra

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: proximal phalanx

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 26g
Identification and comments: metatarsal - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 29g
Identification and comments: tibia - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 26g
Identification and comments: mandible - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 12g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 12g
Identification and comments: pelvis - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 22g
Identification and comments: metacarpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 29g
Identification and comments: tibia - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 30g
Identification and comments: metatarsal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 70g
Identification and comments: metacarpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 3 Weight: 25g
Identification and comments: phalanges

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 9g
Identification and comments: phalanx

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 9g
Identification and comments: calcaneus - left

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 7g
Identification and comments: scapula - left

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 26g
Identification and comments: metatarsal

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 20g
Identification and comments: femur - right

Context: 857 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 7g
Identification and comments: metacarpal or metatarsal

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 5g
Identification and comments: occipital condyle - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 19g
Identification and comments: scapula - right

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 20g
Identification and comments: calcaneus - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 12g
Identification and comments: metacarpal

Faunal Remains

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 6g
Identification and comments: pelvis - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 881 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 9g
Identification and comments: scapula - left

Context: 894 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 4g
Identification and comments: astragalus - left

Context: 894 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 9g
Identification and comments: phalanx

Context: 897 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 12g
Identification and comments: atlas vertebra

Context: 902 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 42g
Identification and comments: tibia - left

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - left

Context: 912 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 16g
Identification and comments: humerus - right

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 32g
Identification and comments: humerus - left

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 15g
Identification and comments: calcaneus - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 10g
Identification and comments: thoracic vertebra - with cut marks

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 4g
Identification and comments: pelvis - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 22g
Identification and comments: pelvis - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 12g
Identification and comments: thoracic vertebra

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 25g
Identification and comments: radius - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 17g
Identification and comments: femur - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 20g
Identification and comments: astragalus - right

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 3g
Identification and comments: radius

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 2g
Identification and comments: lumbar vertebra

Context: 893 Stratigraphic Phase: XXXVIII
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - left

Context: 894 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 18g
Identification and comments: metatarsal

Context: 895 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 7g
Identification and comments: calcaneus - right

Context: 902 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 37g
Identification and comments: femur - right

Context: 902 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 6g
Identification and comments: radius - right

Context: 908 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 16g
Identification and comments: humerus - left

Context: 912 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 25g
Identification and comments: metacarpal

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 5g
Identification and comments: metatarsal

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 8g
Identification and comments: humerus - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 11g
Identification and comments: radius - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 13g
Identification and comments: metatarsal

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 4g
Identification and comments: mandible - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 19g
Identification and comments: femur - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 13g
Identification and comments: scapula - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 2 Weight: 57g
Identification and comments: tibia - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 23g
Identification and comments: humerus - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 14g
Identification and comments: metacarpal

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 11g
Identification and comments: mandible - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 11g
Identification and comments: sacrum - right
Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 18g
Identification and comments: astragalus - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 25g
Identification and comments: tibia - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 19g
Identification and comments: sacrum

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 16g
Identification and comments: thoracic vertebra - with cut marks

Context: 971 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 15g
Identification and comments: astragalus - left

Context: 975 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 24g
Identification and comments: scapula - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 39g
Identification and comments: femur

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 21g
Identification and comments: radius - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 41g
Identification and comments: femur - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: temporal - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 10g
Identification and comments: scapula - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: astragalus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 23g
Identification and comments: femur - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 790g
Identification and comments: frontal - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 40g

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 12g
Identification and comments: humerus - right

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 4g
Identification and comments: phalanx
Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 13g
Identification and comments: astragalus - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 2 Weight: 26g
Identification and comments: scapula - right - with cut marks

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 32g
Identification and comments: radius - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 43g
Identification and comments: humerus - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 7g
Identification and comments: caudal vertebra

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 10g
Identification and comments: lumbar vertebra

Context: 975 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 5g
Identification and comments: scapula - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 47g
Identification and comments: pelvis - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 19g
Identification and comments: femur - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 22g
Identification and comments: scapula - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 56g
Identification and comments: femur - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: metapodial

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: humerus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 27g
Identification and comments: humerus

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 5g
Identification and comments: metapodial

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g

Faunal Remains

Identification and comments: tibia - right	Identification and comments: radius - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: scapula - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 6g Identification and comments: radius - right
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 27g Identification and comments: radius - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 16g Identification and comments: radius - right
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 12g Identification and comments: astragalus - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: tarsal - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 17g Identification and comments: calcaneus - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 3 Weight: 9g Identification and comments: metapodial
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 6g Identification and comments: scapula - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 5g Identification and comments: scapula - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: radius - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 5g Identification and comments: patella
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 29g Identification and comments: femur - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 6g Identification and comments: humerus - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 10g Identification and comments: lumbar vertebra	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: mandible - right
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: ulna - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 15g Identification and comments: metatarsal - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 20g Identification and comments: radius - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: pelvis - right
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 13g Identification and comments: mandible - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 16g Identification and comments: radius - right
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 41g Identification and comments: tibia - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 51g Identification and comments: femur - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 30g Identification and comments: humerus - left	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 8g Identification and comments: femur - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 18g Identification and comments: metacarpal	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 14g Identification and comments: calcaneus - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 12g Identification and comments: metatarsal - with cut marks	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 12g Identification and comments: metacarpal
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 3g Identification and comments: scapula - right	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 44g Identification and comments: femur - left
Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 4g Identification and comments: metacarpal or metatarsal	Context: 995 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 31g Identification and comments: pelvis
Context: 997 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 11g Identification and comments: humerus - left	Context: 997 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 4g Identification and comments: metacarpal or metatarsal
Context: 997 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 6g Identification and comments: scapula	Context: 977 Stratigraphic Phase: XXVIII No. of fragments: 1 Weight: 9g Identification and comments: humerus - left

Context: 1081 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 2 Weight: 9g
Identification and comments: phalanges

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 5g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 30g
Identification and comments: metatarsal

Context: 1113 Stratigraphic Phase: XXVII
No. of fragments: 1 Weight: 7g
Identification and comments: lumbar vertebra

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 4g
Identification and comments: scapula - left

Context: 1124 Stratigraphic Phase: XXV
No. of fragments: 1 Weight: 3g
Identification and comments: ulna - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 9g
Identification and comments: humerus - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 12g
Identification and comments: axis vertebra

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 15g
Identification and comments: ulna - right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 19g
Identification and comments: humerus - left, right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 2 Weight: 19g
Identification and comments: thoracic vertebra

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 10g
Identification and comments: metatarsal or metacarpal

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 12g
Identification and comments: tibia - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 10g
Identification and comments: tibia - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - right

Context: 1095 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 6g
Identification and comments: thoracic vertebra

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 39g
Identification and comments: tibia - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 2 Weight: 5g
Identification and comments: mandible - left, right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 5g
Identification and comments: radius - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 11g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 24g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - right

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 11g
Identification and comments: ulna - left

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 11g
Identification and comments: radius - left

Context: 1124 Stratigraphic Phase: XXV
No. of fragments: 2 Weight: 27g
Identification and comments: radius - left, right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight:
Identification and comments: mandible - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 6g
Identification and comments: ulna - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 3 Weight: 26g
Identification and comments: scapula - left, right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 10g
Identification and comments: tibia - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 10g
Identification and comments: tibia - right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 9g
Identification and comments: antler - with cut marks

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 23g
Identification and comments: femur - right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 29g
Identification and comments: scapula

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 15g
Identification and comments: radius - right

Faunal Remains

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 27g
Identification and comments: astragalus - right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 22g
Identification and comments: metatarsal
Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 7g
Identification and comments: femur - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 13g
Identification and comments: metatarsal

Context: 1127 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - right

Context: 1127 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 7g
Identification and comments: lumbar vertebra

Context: 1164 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 4g
Identification and comments: scapula - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 11g
Identification and comments: scapula - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 6g
Identification and comments: astragalus - left

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 7g
Identification and comments: humerus - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 6g
Identification and comments: cervical vertebra

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 3g
Identification and comments: thoracic vertebra

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 10g
Identification and comments: humerus

Context: 1174 Stratigraphic Phase: XX
No. of fragments: 1 Weight: 2g
Identification and comments: phalanx

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - left

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 37g
Identification and comments: tibia - right

Context: 1177 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 8g
Identification and comments: radius

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 4g
Identification and comments: mandible - left

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 2 Weight: 50g
Identification and comments: humerus - left

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 30g

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 4g
Identification and comments: scapula - left

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra
Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 13g
Identification and comments: ulna - right

Context: 1127 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 25g
Identification and comments: radius - right

Context: 1127 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 8g
Identification and comments: calcaneus - right

Context: 1153 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 16g
Identification and comments: radius - right

Context: 1164 Stratigraphic Phase: XXIV
No. of fragments: 1 Weight: 12g
Identification and comments: metatarsal - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 23g
Identification and comments: humerus - left

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 5g
Identification and comments: lumbar vertebra

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 16g
Identification and comments: tibia - left

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 8g
Identification and comments: metacarpal or metatarsal

Context: 1174 Stratigraphic Phase: XX
No. of fragments: 1 Weight: 7g
Identification and comments: pelvis - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 12g
Identification and comments: scapula - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 58g
Identification and comments: tibia - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 6g
Identification and comments: radius - right

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 15g
Identification and comments: humerus - left

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 20g
Identification and comments: tibia - right

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 2 Weight: 21g

Identification and comments: tibia - right

Context: 1208 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 19g
Identification and comments: tibia - right

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - right

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 8g
Identification and comments: humerus - left

Context: 1215 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 8g
Identification and comments: scapula - right

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 11g
Identification and comments: mandible - right

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 25g
Identification and comments: calcaneus - left

Context: 1270 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 30g
Identification and comments: antler

Context: 1290 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 5g
Identification and comments: scapula - right

Context: 1290 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 3g
Identification and comments: mandible - left

Context: 1383 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 14g
Identification and comments: tibia - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 29g
Identification and comments: femur - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight:
Identification and comments: mandible - left

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 15g
Identification and comments: metacarpal

Context: 1976 Stratigraphic Phase:
No. of fragments: 1 Weight: 10g
Identification and comments: scapula - right - with cut marks

Identification and comments: lumbar vertebrae

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 10g
Identification and comments: scapula - right

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 7g
Identification and comments: thoracic vertebra

Context: 1214 Stratigraphic Phase:
No. of fragments: 1 Weight: 14g
Identification and comments: radius - right

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 9g
Identification and comments: scapula - right

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 40g
Identification and comments: femur - left

Context: 1243 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 6g
Identification and comments: lumbar vertebra

Context: 1270 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 27g
Identification and comments: scapula - left

Context: 1290 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 12g
Identification and comments: femur - left

Context: 1292 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 2g
Identification and comments: femur - right

Context: 1383 Stratigraphic Phase: XXXVI
No. of fragments: 2 Weight: 12g
Identification and comments: vertebrae - with cut marks

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 7g
Identification and comments: scapula - left

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 20g
Identification and comments: metatarsal

Context: 1463 Stratigraphic Phase: XV
No. of fragments: 1 Weight: 14g
Identification and comments: tibia - right

10.2.2 *Bos indicus* or *Bos taurus* (cattle)

Bos accounts for approximately one third of the species bone count in period J, one quarter of the bone count in period I and only one fifth in period G. The percentage of the assemblage that *Bos* represents declines also, from being over one third in J to one sixth in G, but in periods H to B *Bos* makes up a significant proportion of the assemblage, although only in H does it exceed *Axis*. Table 10.2 shows the amount of *Bos* material recovered by period, in relation to the other major species. As *Bos* is largely a domesticated animal in Sri Lanka, it would be expected that the occupants of ASW2 would have had some degree of control over herd management and thus enable some selectivity about the sex and ages of animals not only produced for meat consumption but also for dairy

products and traction purposes. References concerning breeding during the mediaeval period suggest that, while not as important as the practice of agriculture, domestic cattle and buffalo were significant both within the subsistence and caste systems (Geiger 1960: 91). Today, the cattle population is dominated by the humped or zebu type, which is used for draught and dairy product purposes (Corbet and Hill 1992: 263). Since this is a domesticated and obviously very important at ASW2, the conditions for keeping and breeding cattle are largely dependent on human activities and requirements, providing that the basic needs for grazing and water provision are met. *Bos* bones have been recovered from Mesolithic levels at Ratnapura and on the basis of the size of these bones it has been suggested that they may be representative of a wild form.

ancestral to the domesticated cattle now found on Sri Lanka, and recovered from the later sites such as ASW2. *Bos* bones were recovered and identified from the Gedige site (Deraniyagala 1972: 155), but only from the first and last periods excavated. On the basis of cut marks from the Gedige cattle bones and other material from the Arikamedu faunal remains, Deraniyagala (ibid.: 157) discusses Wheeler's interpretation of beef-eating in Sri Lanka. Beef is understood to have been eaten on the island until AD 100, with the major taboo on beef occurring during the mid to late historic period in association with an increase in Hindu influence. Given the contemporary importance of cattle throughout South Asia, not only as a source of meat but also for other related products and purposes such as traction, milk and dairy products, horns, bones, skins, and ceremonial and religious purposes, the use and status of

cattle at ASW2 may not be directly reflected in the archaeology or the faunal assemblage. While the age estimations for *Bos* for periods J, I, G and H, based on adult teeth, are limited by the small sample number, it appears that during periods G and H the number of animals in the young adult and adult categories at death was greater than in other periods. The lack of *Bos* teeth available for ageing from period J makes comparison difficult. However, the increased number of young adult teeth in G and H may suggest a decrease in age at death of cattle at the site. Table 10.3 shows the age estimations for *Axis*, *Bos* and *Sus*. As the total number of cattle bones has increased greatly from period J to I, this may indicate greater use of cattle for meat purposes. The decline in bone numbers from I to G and H and the suggested decrease in age at death may perhaps show a change in beef requirements and slaughter patterns.

Context: 4 Stratigraphic Phase: CXIV
No. of fragments: 1 Weight: 35.9g
Identification and comments: M3, ageing adult

Context: 17 Stratigraphic Phase: CXIII
No. of fragments: 1 Weight: 24.0g
Identification and comments: M2, ageing adult

Context: 24 Stratigraphic Phase: C
No. of fragments: 1 Weight: 12.9g
Identification and comments: P3, young adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 20.6g
Identification and comments: M1, upper, adult

Context: 41 Stratigraphic Phase: C
No. of fragments: 1 Weight: 5.0g
Identification and comments: M, ageing adult

Context: 83 Stratigraphic Phase: XCVI
No. of fragments: 1 Weight: 21.5g
Identification and comments: M, adult

Context: 100 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 10.8g
Identification and comments: P4, adult

Context: 121 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 10.0g
Identification and comments: M3, adult

Context: 134 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 12.2g
Identification and comments: M1, adult

Context: 266 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 2.3g
Identification and comments: M1, broken, ageing adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 9.3g
Identification and comments: M1, adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 4.2g
Identification and comments: M2, young adult

Context: 318 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.7g
Identification and comments: M, broken, ageing adult

Context: 331 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 13.6g

Context: 14 Stratigraphic Phase: CII
No. of fragments: 1 Weight: 28.0g
Identification and comments: M1, adult

Context: 24 Stratigraphic Phase: C
No. of fragments: 1 Weight: 13.7g
Identification and comments: P4, young adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 13.2g
Identification and comments: M3, adult

Context: 41 Stratigraphic Phase: C
No. of fragments: 1 Weight: 9.5g
Identification and comments: P4, upper, young adult

Context: 58 Stratigraphic Phase: XCVI
No. of fragments: 1 Weight: 17.5g
Identification and comments: M1, young adult

Context: 88 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 17.9g
Identification and comments: M3, broken, ageing adult

Context: 121 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.5g
Identification and comments: M1, adult

Context: 125 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.3g
Identification and comments: P4, young adult

Context: 175 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.7g
Identification and comments: P3, lower, adult

Context: 273 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 4.0g
Identification and comments: M1, adult

Context: 288 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 12.1g
Identification and comments: M2, adult

Context: 301 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 48.0g
Identification and comments: M2, elderly adult

Context: 326 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 14.2g
Identification and comments: M, adult, broken

Context: 353 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 16.7g

Identification and comments: M3, adult

Context: 487 Stratigraphic Phase: LXXXI
No. of fragments: 1 Weight: 5.7g
Identification and comments: P4, young adult

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 3 Weight: 33g
Identification and comments: vertebrae

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: carpal

Context: 603 Stratigraphic Phase: LXXVIII
No. of fragments: 1 Weight: 35g
Identification and comments: ulna - left

Context: 605 Stratigraphic Phase: LXXXII
No. of fragments: 1 Weight: 31g
Identification and comments: tibia - left

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 13g
Identification and comments: tibia

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 13g
Identification and comments: tibia

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 31g
Identification and comments: radius - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: carpal

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 8g
Identification and comments: axis

Context: 615 Stratigraphic Phase: LXVII
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 3.3g
Identification and comments: M1, young adult

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 42g
Identification and comments: humerus - right with cut marks

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 17g
Identification and comments: frontal

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 32g
Identification and comments: calcaneus - left

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 10g
Identification and comments: calcaneus - right

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 53g

Identification and comments: M2, broken, elderly adult

Context: 600 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 11g
Identification and comments: carpal

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 35g
Identification and comments: ulna - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 14g
Identification and comments: coracoid

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 69g
Identification and comments: frontal - right

Context: 605 Stratigraphic Phase: LXXXII
No. of fragments: 1 Weight: 72g
Identification and comments: radius - left

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 69g
Identification and comments: frontal - right - with base horn core

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 20g
Identification and comments: tibia - right

Context: 609 Stratigraphic Phase: LXIX
No. of fragments: 1 Weight: 6.8g
Identification and comments: M1, adult

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 17g
Identification and comments: frontal

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 18g
Identification and comments: occipital

Context: 615 Stratigraphic Phase: LXVII
No. of fragments: 1 Weight: 33g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVII
No. of fragments: 1 Weight: 32g
Identification and comments: calcaneus - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 33g
Identification and comments: humerus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 18g
Identification and comments: occipital

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: thoracic vertebra

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 53g
Identification and comments: humerus - right

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 30g
Identification and comments: femur - left

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 9g
Identification and comments: lumbar vertebra

Context: 632 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 10g

Faunal Remains

Identification and comments: humerus	Identification and comments: calcaneus
Context: 634 Stratigraphic Phase: LXXIX No. of fragments: 1 Weight: 16g Identification and comments: mandible - right	Context: 634 Stratigraphic Phase: LXXIX No. of fragments: 1 Weight: 6g Identification and comments: atlas vertebra
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 40g Identification and comments: pelvis - right	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 18g Identification and comments: femur
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 40g Identification and comments: pelvis	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 40g Identification and comments: pelvis - right
Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 18g Identification and comments: femur	Context: 635 Stratigraphic Phase: LXXIII No. of fragments: 1 Weight: 6g Identification and comments: metapodial
Context: 643 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 23g Identification and comments: pelvis - left	Context: 643 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 23g Identification and comments: pelvis
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 23g Identification and comments: femur - right	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 8g Identification and comments: tibia
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 20g Identification and comments: pelvis - right	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 90g Identification and comments: frontal - right
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 13g Identification and comments: calcaneus	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 20g Identification and comments: vertebra
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 10g Identification and comments: thoracic vertebra	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 13g Identification and comments: metapodial
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 23g Identification and comments: femur - right	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 8g Identification and comments: tibia
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 20g Identification and comments: pelvis - left	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 90g Identification and comments: frontal - right
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 13g Identification and comments: calcaneus - left	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 20g Identification and comments: axis vertebra - with cut marks
Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 10g Identification and comments: thoracic vertebra	Context: 659 Stratigraphic Phase: LXXII No. of fragments: 1 Weight: 13g Identification and comments: metapodial
Context: 663 Stratigraphic Phase: LXVI No. of fragments: 1 Weight: 20g Identification and comments: phalanx	Context: 669 Stratigraphic Phase: LXIX No. of fragments: 1 Weight: 8g Identification and comments: axis vertebra
Context: 669 Stratigraphic Phase: LXIX No. of fragments: 1 Weight: 13g Identification and comments: tibia	Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 70g Identification and comments: calcaneus - left
Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 26g Identification and comments: femur	Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 9g Identification and comments: vertebra
Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 70g Identification and comments: calcaneus - left	Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 70g Identification and comments: calcaneus
Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 26g Identification and comments: femur	Context: 670 Stratigraphic Phase: LXIV No. of fragments: 1 Weight: 9g Identification and comments: vertebra
Context: 675 Stratigraphic Phase: LXVII No. of fragments: 1 Weight: 14g Identification and comments: patella	Context: 684 Stratigraphic Phase: LXVII No. of fragments: 1 Weight: 16g Identification and comments: mandible - right

Context: 684 Stratigraphic Phase: LXVII
No. of fragments: 1 Weight: 6g
Identification and comments: atlas

Context: 692 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 6g
Identification and comments: tibia

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 2 Weight: 16g
Identification and comments: lumbar vertebra

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 16g
Identification and comments: pelvis

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 45g
Identification and comments: femur - left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 17g
Identification and comments: lumbar vertebra

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: vertebra

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 41g
Identification and comments: radius - left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: vertebra

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 6g
Identification and comments: tibia

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 31g
Identification and comments: tibia - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 10g
Identification and comments: thoracic vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: metapodial

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 26g
Identification and comments: axis

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 17g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 19g
Identification and comments: radius - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 31g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 45g
Identification and comments: frontal - left

Context: 692 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 28g
Identification and comments: scapula - left

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 21g
Identification and comments: thoracic vertebra

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 21g
Identification and comments: thoracic vertebra - with cut marks

Context: 695 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: vertebra

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 41g
Identification and comments: axis vertebra - with cut marks

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: temporal

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 40g
Identification and comments: axis

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: temporal

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 45g
Identification and comments: femur - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 42g
Identification and comments: ulna - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 23g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: lumbar vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 105g
Identification and comments: temporal

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 13g
Identification and comments: thoracic vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 19g
Identification and comments: tibia - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: calcaneus

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: frontal - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 38g
Identification and comments: radius - left

Faunal Remains

Context: 698 No. of fragments: 1 Weight: 20g Identification and comments: femur - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 120g Identification and comments: metatarsal -right	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 9g Identification and comments: corpus	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 2 Weight: 33g Identification and comments: phalanges	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 7g Identification and comments: phalanx	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 25g Identification and comments: scapula - right	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 22g Identification and comments: humerus - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 3 Weight: 58g Identification and comments: lumbar vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 18g Identification and comments: lumbar vertebra	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 48g Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 13g Identification and comments: tibia - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 9g Identification and comments: vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 20g Identification and comments: metapodial	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 16.3g Identification and comments: M1, adult	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 2 Weight: 36.4g Identification and comments: M fragments, young adult and adult	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 7.5g Identification and comments: P4, young adult	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 44g Identification and comments: ulna - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 17g Identification and comments: pelvis - right	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 28g Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 25g Identification and comments: metatarsal	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 14g Identification and comments: calcaneus - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 11g Identification and comments: metapodial	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 42g Identification and comments: ulna - left	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 31g Identification and comments: tibia - right	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 23g Identification and comments: femur - right - with cut marks	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 10g Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 12g Identification and comments: lumbar vertebra	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 11g Identification and comments: metapodial	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 105g Identification and comments: temporal - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 26g Identification and comments: axis vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 13g Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 17g Identification and comments: lumbar vertebra	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 19g Identification and comments: tibia - left	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 36g Identification and comments: radius - left	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 31g Identification and comments: mandible - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 20g Identification and comments: frontal	Stratigraphic Phase: LXIV
Context: 698 No. of fragments: 1 Weight: 44g Identification and comments: ulna - right	Stratigraphic Phase: LXIV	Context: 698 No. of fragments: 1 Weight: 17g Identification and comments: pelvis - right	Stratigraphic Phase: LXIV

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 28g
Identification and comments: thoracic vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 45g
Identification and comments: frontal

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 20g
Identification and comments: femur - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: carpal

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 25g
Identification and comments: scapula - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 3 Weight: 58g
Identification and comments: lumbar vertebrae

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 4 Weight: 49g
Identification and comments: thoracic vertebrae -
with cut marks

Context: 701 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: vertebra

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 15g
Identification and comments: femur - right

Context: 714 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 17g
Identification and comments: mandible

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 31g
Identification and comments: atlas vertebra

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 15g
Identification and comments: femur - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 26g
Identification and comments: pelvis

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 13g
Identification and comments: thoracic vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 22g
Identification and comments: lumbar vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 23g
Identification and comments: lumbar vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 22g
Identification and comments: lumbar vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 23g
Identification and comments: lumbar vertebra

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 13g
Identification and comments: thoracic vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 25g
Identification and comments: metatarsal

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 38g
Identification and comments: radius - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 120g
Identification and comments: metatarsal

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 3 Weight: 40g
Identification and comments: phalanges

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 22g
Identification and comments: humerus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 18g
Identification and comments: lumbar vertebra - with cut mark

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3g
Identification and comments: tibia - right

Context: 701 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: vertebra

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 32g
Identification and comments: metacarpal

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 17g
Identification and comments: vertebra

Context: 714 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 5g
Identification and comments: sacrum

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 17g
Identification and comments: vertebra

Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 8g
Identification and comments: metacarpal

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 23g
Identification and comments: metacarpal

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 169g
Identification and comments: mandible

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 33g
Identification and comments: scapula - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 26g
Identification and comments: pelvis - with cut marks

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 33g
Identification and comments: scapula - right

Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 23g
Identification and comments: metacarpal

Faunal Remains

Context: 716 No. of fragments: 1 Identification and comments: tibia - left	Stratigraphic Phase: LXIV Weight: 30g	Context: 716 No. of fragments: 1 Identification and comments: atlas	Stratigraphic Phase: LXIV Weight: 5g
Context: 717 No. of fragments: 1 Identification and comments: radius - left	Stratigraphic Phase: LXV Weight: 33g	Context: 716 No. of fragments: 1 Identification and comments: atlas vertebra	Stratigraphic Phase: LXIV Weight: 5g
Context: 717 No. of fragments: 1 Identification and comments: scapula - left	Stratigraphic Phase: LXV Weight: 28g	Context: 717 No. of fragments: 1 Identification and comments: tibia - left	Stratigraphic Phase: LXV Weight: 50g
Context: 719 No. of fragments: 1 Identification and comments: sacrum	Stratigraphic Phase: LXIII Weight: 5g	Context: 717 No. of fragments: 1 Identification and comments: radius - left	Stratigraphic Phase: LXV Weight: 74g
Context: 720 No. of fragments: 1 Identification and comments: tibia - right	Stratigraphic Phase: LXIII Weight: 23g	Context: 720 No. of fragments: 1 Identification and comments: tibia - right	Stratigraphic Phase: LXIII Weight: 23g
Context: 721 No. of fragments: 1 Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIII Weight: 33g	Context: 721 No. of fragments: 1 Identification and comments: atlas	Stratigraphic Phase: LXIII Weight: 31g
Context: 721 No. of fragments: 1 Identification and comments: tibia - left	Stratigraphic Phase: LXIII Weight: 50g	Context: 721 No. of fragments: 1 Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIII Weight: 33g
Context: 729 No. of fragments: 1 Identification and comments: pelvis - left	Stratigraphic Phase: LIII Weight: 51g	Context: 727 No. of fragments: 1 Identification and comments: pelvis	Stratigraphic Phase: LIII Weight: 20g
Context: 729 No. of fragments: 1 Identification and comments: femur - left	Stratigraphic Phase: LIII Weight: 21g	Context: 729 No. of fragments: 1 Identification and comments: skull	Stratigraphic Phase: LIII Weight: 10g
Context: 729 No. of fragments: 1 Identification and comments: radius - left	Stratigraphic Phase: LIII Weight: 61g	Context: 729 No. of fragments: 1 Identification and comments: astragalus - right	Stratigraphic Phase: LIII Weight: 26g
Context: 729 No. of fragments: 1 Identification and comments: pelvis - right	Stratigraphic Phase: LIII Weight: 28g	Context: 729 No. of fragments: 1 Identification and comments: thoracic vertebra	Stratigraphic Phase: LIII Weight: 64g
Context: 729 No. of fragments: 1 Identification and comments: atlas vertebra	Stratigraphic Phase: LIII Weight: 28g	Context: 729 No. of fragments: 1 Identification and comments: metacarpal	Stratigraphic Phase: LIII Weight: 41g
Context: 736 No. of fragments: 1 Identification and comments: caudal vertebra	Stratigraphic Phase: LXIII Weight: 23g	Context: 729 No. of fragments: 1 Identification and comments: scapula - left	Stratigraphic Phase: LIII Weight: 44g
Context: 739 No. of fragments: 1 Identification and comments: caudal vertebra	Stratigraphic Phase: LXIII Weight: 7g	Context: 739 No. of fragments: 1 Identification and comments: mandible - right	Stratigraphic Phase: LXIII Weight: 35g
Context: 739 No. of fragments: 1 Identification and comments: thoracic vertebra	Stratigraphic Phase: LXIII Weight: 15g	Context: 739 No. of fragments: 1 Identification and comments: calcaneus - left	Stratigraphic Phase: LXIII Weight: 12g
Context: 739 No. of fragments: 1 Identification and comments: caudal vertebra	Stratigraphic Phase: LXIII Weight: 7g	Context: 739 No. of fragments: 1 Identification and comments: mandible - right - with cut	Stratigraphic Phase: LXIII Weight: 35g
Context: 739 No. of fragments: 1 Identification and comments: thoracic vertebra - with cut marks	Stratigraphic Phase: LXIII Weight: 15g	Context: 739 No. of fragments: 1 Identification and comments: calcaneus - left	Stratigraphic Phase: LXIII Weight: 12g
Context: 744 No. of fragments: 1 Identification and comments: radius - left	Stratigraphic Phase: LXII Weight: 81g	Context: 744 No. of fragments: 1 Identification and comments: humerus - left	Stratigraphic Phase: LXII Weight: 26g
Context: 744 No. of fragments: 1 Identification and comments: mandible - right	Stratigraphic Phase: LXII Weight: 52g	Context: 744 No. of fragments: 1 Identification and comments: pelvis - left	Stratigraphic Phase: LXII Weight: 16g

Context: 744 Stratigraphic Phase: LXII No. of fragments: 1 Weight: 25g Identification and comments: scapula - left	Context: 744 Stratigraphic Phase: LXII No. of fragments: 1 Weight: 69g Identification and comments: radius - left
Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 25g Identification and comments: mandible - left	Context: 752 Stratigraphic Phase: XLI No. of fragments: 1 Weight: 38g Identification and comments: pelvis - with cut marks
Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 29g Identification and comments: humerus - left	Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 18g Identification and comments: pelvis
Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 6g Identification and comments: scapula	Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 3g Identification and comments: caudal vertebra
Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 19g Identification and comments: pelvis - left	Context: 767 Stratigraphic Phase: LX No. of fragments: 1 Weight: 11g Identification and comments: scapula - with cut marks
Context: 769 Stratigraphic Phase: XLVIII No. of fragments: 1 Weight: 14g Identification and comments: rib	Context: 769 Stratigraphic Phase: XLVIII No. of fragments: 1 Weight: 11g Identification and comments: vertebra - with cut marks
Context: 787 Stratigraphic Phase: No. of fragments: 1 Weight: 18g Identification and comments: tibia - right	Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 29g Identification and comments: vertebra - with cut marks
Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 55g Identification and comments: thoracic vertebra with cut marks	Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 39g Identification and comments: calcaneus - left
Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 69g Identification and comments: humerus - left	Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 12g Identification and comments: rib
Context: 788 Stratigraphic Phase: LIII No. of fragments: 2 Weight: 8g Identification and comments: pelvis	Context: 787 Stratigraphic Phase: XLIII No. of fragments: 1 Weight: 8g Identification and comments: femur - left
Context: 788 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 16g Identification and comments: femur - right	Context: 788 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 16g Identification and comments: humerus - left
Context: 788 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 21g Identification and comments: tibia - left	Context: 788 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 4g Identification and comments: pelvis
Context: 789 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 23g Identification and comments: lumbar vertebra	Context: 789 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 8g Identification and comments: calcaneus - left
Context: 789 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 24g Identification and comments: lumbar vertebra	Context: 789 Stratigraphic Phase: LIII No. of fragments: 1 Weight: 16g Identification and comments: lumbar vertebra
Context: 790 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: Identification and comments: skull	Context: 790 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 46g Identification and comments: atlas - right
Context: 790 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 46g Identification and comments: astragalus - right	Context: 790 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 9g Identification and comments: lumbar vertebra
Context: 791 Stratigraphic Phase: XLVIII No. of fragments: 1 Weight: 20g Identification and comments: axis	Context: 790 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: Identification and comments: skull
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 18g Identification and comments: pelvis - right	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 20g Identification and comments: axis vertebra
Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 11g Identification and comments: coronoid process	Context: 791 Stratigraphic Phase: XLVII No. of fragments: 1 Weight: 14g Identification and comments: scapula - left
Context: 791 Stratigraphic Phase: XLVII	Context: 791 Stratigraphic Phase: XLVII

- No. of fragments: 1 Weight: 94g
Identification and comments: scapula - left
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 18g
Identification and comments: astragalus - right
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 10g
Identification and comments: sacrum
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 11g
Identification and comments: mandible - right
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 32g
Identification and comments: pelvis
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 15g
Identification and comments: sacrum - with cut marks
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 54g
Identification and comments: femur - left
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 26g
Identification and comments: tibia - left
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 2 Weight: 34g
Identification and comments: vertebrae
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 13g
Identification and comments: astragalus - right
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 14g
Identification and comments: cervical vertebra
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 24g
Identification and comments: tibia - left
- Context: 834 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 75g
Identification and comments: calcaneus - left
- Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 12g
Identification and comments: femur - right
- Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 29g
Identification and comments: pelvis
- Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 13g
Identification and comments: scapula
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 45g
Identification and comments: radius - left
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 31g
Identification and comments: tarsal
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 4 Weight: 104g
Identification and comments: vertebrae
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 52g
Identification and comments: calcaneus - left
- No. of fragments: 1 Weight: 70g
Identification and comments: radius - left
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 32g
Identification and comments: scapula - right
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 27g
Identification and comments: thoracic vertebra
- Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 17g
Identification and comments: skull
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 42g
Identification and comments: pelvis
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 49g
Identification and comments: pelvis
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 75g
Identification and comments: radius - left
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 13g
Identification and comments: pelvis
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 32g
Identification and comments: skull
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 2 Weight: 36g
Identification and comments: tibia - right
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 9g
Identification and comments: tibia - left
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 90g
Identification and comments: metacarpal
- Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 8g
Identification and comments: metacarpal
- Context: 834 Stratigraphic Phase: XLII
No. of fragments: 1 Weight: 13g
Identification and comments: vertebra
- Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 3 Weight: 90g
Identification and comments: lumbar vertebrae
- Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 12g
Identification and comments: thoracic vertebra
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 61g
Identification and comments: astragalus - left
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: tibia - right
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 31g
Identification and comments: skull
- Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 77g
Identification and comments: astragalus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 84g
Identification and comments: metacarpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 34g
Identification and comments: tibia - right
Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 43g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 163g
Identification and comments: vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 24g
Identification and comments: pelvis - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 8g
Identification and comments: vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 3 Weight: 80g
Identification and comments: skull

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 15g
Identification and comments: phalanx

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 31g
Identification and comments: radius - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 85g
Identification and comments: astragalus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 19g
Identification and comments: astragalus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 22g
Identification and comments: calcaneus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 24g
Identification and comments: carpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 39g
Identification and comments: scapula - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 76g
Identification and comments: thoracic vertebrae

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 31g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 68g
Identification and comments: humerus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 32g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 18g
Identification and comments: atlas vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 17g

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 14g
Identification and comments: carpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 79g
Identification and comments: metacarpal
Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 3 Weight: 124g
Identification and comments: tibia - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 27g
Identification and comments: scapula

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 32g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 6g
Identification and comments: phalanx

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 17g
Identification and comments: femur - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 24g
Identification and comments: vertebra - with cut marks

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 14g
Identification and comments: pelvis - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 70g
Identification and comments: pelvis - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 11g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 42g
Identification and comments: ulna - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 3 Weight: 60g
Identification and comments: pelvis - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 31g
Identification and comments: metapodial

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 58g
Identification and comments: radius - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 39g
Identification and comments: lumbar vertebrae

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 25g
Identification and comments: lumbar vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 25g
Identification and comments: mandible - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 80g
Identification and comments: lumbar vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g

Identification and comments: lumbar vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 43g
Identification and comments: tibia - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 24g
Identification and comments: ulna - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 21g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 112g
Identification and comments: humerus - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 19g
Identification and comments: thoracic vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 17g
Identification and comments: lumbar vertebra

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 24.3g
Identification and comments: M3, upper, adult

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 32g
Identification and comments: phalanx

Context: 856 Stratigraphic Phase: XXXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: thoracic vertebra

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 145g
Identification and comments: humerus - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 38g
Identification and comments: mandible

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 6g
Identification and comments: lumbar vertebra

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 36g
Identification and comments: tibia - right

Context: 885 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 20g
Identification and comments: lumbar vertebra

Context: 894 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 20g
Identification and comments: femur - left

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 25g
Identification and comments: metapodial

Context: 912 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 47g
Identification and comments: tibia

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 55g
Identification and comments: tibia - right

Identification and comments: radius - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 22g
Identification and comments: pelvis

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 26g
Identification and comments: humerus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 15g
Identification and comments: axis vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 21g
Identification and comments: carpal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 6g
Identification and comments: vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 16g
Identification and comments: thoracic vertebra

Context: 850 Stratigraphic Phase: XL
No. of fragments: 1 Weight: 140g
Identification and comments: metatarsal

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 13g
Identification and comments: patella

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 12g
Identification and comments: tibia - right

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 149g
Identification and comments: femur - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 81g
Identification and comments: calcaneus - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 50g
Identification and comments: radius - right

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 19g
Identification and comments: mandible

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 47g
Identification and comments: humerus - right - cut marks

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 31g
Identification and comments: metacarpal - with cut marks

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 33g
Identification and comments: thoracic vertebra

Context: 912 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 55g
Identification and comments: pelvis - right

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 9g
Identification and comments: tarsal

Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 11g Identification and comments: radius - left	Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 10g Identification and comments: pelvis - right
Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 3g Identification and comments: radius - left	Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 25g Identification and comments: calcaneus - left
Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 8g Identification and comments: lumbar vertebra	Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 15g Identification and comments: thoracic vertebra - with cut marks
Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 8g Identification and comments: thoracic vertebra	Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 10g Identification and comments: cloven
Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 41g Identification and comments: calcaneus - left	Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 47g Identification and comments: femur - right
Context: 961 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 8g Identification and comments: thoracic vertebra	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 19g Identification and comments: thoracic vertebra - with cut marks
Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 26g Identification and comments: ulna - left	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 29g Identification and comments: thoracic vertebra
Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 18g Identification and comments: femur - left	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 26g Identification and comments: lumbar vertebra - with cut marks
Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 21g Identification and comments: phalanx	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 6g Identification and comments: thoracic vertebra
Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 66g Identification and comments: radius - right	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 8g Identification and comments: mandible
Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 37g Identification and comments: atlas vertebra	Context: 962 Stratigraphic Phase: XXX No. of fragments: 1 Weight: 8g Identification and comments: phalanx
Context: 963 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 32g Identification and comments: scapula - right	Context: 963 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 27g Identification and comments: femur - right
Context: 963 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 15g Identification and comments: thoracic vertebra	Context: 963 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 31g Identification and comments: lumbar vertebra
Context: 963 Stratigraphic Phase: XXXII No. of fragments: 1 Weight: 38g Identification and comments: scapula	Context: 963 Stratigraphic Phase: XXXII No. of fragments: 1 Weight: 48g Identification and comments: femur - left
Context: 963 Stratigraphic Phase: XXXII No. of fragments: 1 Weight: 42g Identification and comments: radius - right	Context: 963 Stratigraphic Phase: XXXII No. of fragments: 1 Weight: 12g Identification and comments: carpal
Context: 963 Stratigraphic Phase: XXXII No. of fragments: 1 Weight: 29g Identification and comments: humerus - left	Context: 970 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 49g Identification and comments: radius - right
Context: 970 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 7g Identification and comments: carpal	Context: 970 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 30g Identification and comments: femur
Context: 970 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 15g Identification and comments: tibia - left	Context: 970 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 12g Identification and comments: thoracic vertebra
Context: 971 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 17g Identification and comments: phalanx	Context: 971 Stratigraphic Phase: XXXI No. of fragments: 1 Weight: 9g Identification and comments: lumbar vertebra

Faunal Remains

Context: 972 **Stratigraphic Phase: XXX**
No. of fragments: 1 **Weight: 16g**
Identification and comments: lumbar vertebra

Context: 972 **Stratigraphic Phase: XXX**
No. of fragments: 1 **Weight: 28g**
Identification and comments: pelvis - right

Context: 974 **Stratigraphic Phase: XXXI**
No. of fragments: 1 **Weight: 9g**
Identification and comments: tibia - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 51g**
Identification and comments: radius - left - with cut marks

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 3 **Weight: 86g**
Identification and comments: thoracic vertebrae - with cut marks

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 14g**
Identification and comments: metatarsal

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 81g**
Identification and comments: astragalus - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 45g**
Identification and comments: tibia - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 5g**
Identification and comments: metatarsal or metacarpal

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 2 **Weight: 62g**
Identification and comments: calcaneum - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 78g**
Identification and comments: pelvis

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 40g**
Identification and comments: scapula

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 2 **Weight: 49g**
Identification and comments: scapula

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 22g**
Identification and comments: metacarpal

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 2 **Weight: 38g**
Identification and comments: thoracic vertebrae

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 36g**
Identification and comments: mandible - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 19g**
Identification and comments: humerus - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 19g**
Identification and comments: humerus - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 2 **Weight: 157g**
Identification and comments: scapula

Context: 972 **Stratigraphic Phase: XXXI**
No. of fragments: 1 **Weight: 24g**
Identification and comments: scapula - right

Context: 974 **Stratigraphic Phase: XXX**
No. of fragments: 1 **Weight: 54g**
Identification and comments: lumbar vertebra

Context: 975 **Stratigraphic Phase: XXXI**
No. of fragments: 1 **Weight: 7g**
Identification and comments: mandible - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 4 **Weight: 178g**
Identification and comments: tibia - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 34g**
Identification and comments: occipital - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 30g**
Identification and comments: radius - right

Context: 997 **Stratigraphic Phase: XXXI**
No. of fragments: 1 **Weight: 6g**
Identification and comments: lumbar vertebra

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 123g**
Identification and comments: radius & ulna - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 41g**
Identification and comments: scapula - left

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 7g**
Identification and comments: thoracic vertebra

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 30g**
Identification and comments: ulna - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 60g**
Identification and comments: metacarpal

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 33g**
Identification and comments: calcaneus - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 45g**
Identification and comments: skull

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 20g**
Identification and comments: scapula - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 8g**
Identification and comments: lumbar vertebra

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 5g**
Identification and comments: mandible

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 12g**
Identification and comments: tibia - right

Context: 977 **Stratigraphic Phase: XXVIII**
No. of fragments: 1 **Weight: 12g**
Identification and comments: tibia - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: pelvis

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: calcaneus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 7g
Identification and comments: atlas vertebra

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: metatarsal

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: pelvis

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 150g
Identification and comments: humerus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 4g
Identification and comments: radius - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: pelvis - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 39g
Identification and comments: radius - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 4 Weight: 30g
Identification and comments: lumbar vertebrae

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: tibia - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 14g
Identification and comments: humerus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - right

Context: 987 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 34g
Identification and comments: femur - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 81g
Identification and comments: ulna - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 61g
Identification and comments: mandible - left

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 30g
Identification and comments: ulna - left

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 56g
Identification and comments: tibia - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 48g
Identification and comments: astragalus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 26g
Identification and comments: mandible

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 34g
Identification and comments: thoracic vertebra

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 39g
Identification and comments: femur - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 27g
Identification and comments: skull

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 10g
Identification and comments: pelvis

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 60g
Identification and comments: astragalus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 52g
Identification and comments: radius - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 47g
Identification and comments: calcaneus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 25g
Identification and comments: tibia - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 3 Weight: 68g
Identification and comments: thoracic vertebrae

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 61g
Identification and comments: metatarsal

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 10g
Identification and comments: radius - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: radius - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 16g
Identification and comments: maxilla - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 22g
Identification and comments: humerus

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 25g
Identification and comments: metacarpal

Context: 1119 Stratigraphic Phase: XXIX
No. of fragments: 1 Weight: 22g
Identification and comments: radius - right

Context: 1124 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 15g
Identification and comments: lumbar vertebra

Faunal Remains

Context: 1124 Stratigraphic Phase: XXV No. of fragments: 2 Weight: 65g Identification and comments: radius - left, right	Context: 1124 Stratigraphic Phase: XXV No. of fragments: 1 Weight: 45g Identification and comments: horn core - right
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 103g Identification and comments: metacarpal	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 112g Identification and comments: humerus - left
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 20g Identification and comments: tibia - left	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 2 Weight: 53g Identification and comments: mandible - left
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 25g Identification and comments: ulna - left	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 85g Identification and comments: humerus - right
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 30g Identification and comments: mandible - left	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 7g Identification and comments: lumbar vertebra
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 24g Identification and comments: scapula - right	Context: 1125 Stratigraphic Phase: XXXIII No. of fragments: 1 Weight: 6g Identification and comments: thoracic vertebra
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 138g Identification and comments: metatarsal	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 52g Identification and comments: mandible - right
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 113g Identification and comments: metacarpal	Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 2 Weight: 62g Identification and comments: lumbar vertebrae
Context: 1125 Stratigraphic Phase: XXIII No. of fragments: 1 Weight: 11g Identification and comments: radius - right	Context: 1153 Stratigraphic Phase: XXIV No. of fragments: 1 Weight: 20g Identification and comments: scapula - right
Context: 1153 Stratigraphic Phase: XXIV No. of fragments: 1 Weight: 10g Identification and comments: ulna - left	Context: 1172 Stratigraphic Phase: XXII No. of fragments: 1 Weight: 12g Identification and comments: zygomatic
Context: 1172 Stratigraphic Phase: XXII No. of fragments: 1 Weight: 12g Identification and comments: astragalus - right	Context: 1172 Stratigraphic Phase: XXII No. of fragments: 1 Weight: 23g Identification and comments: mandible - left
Context: 1172 Stratigraphic Phase: XXII No. of fragments: 1 Weight: 6g Identification and comments: thoracic vertebra	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 49g Identification and comments: calcaneus - left
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 48g Identification and comments: humerus - right	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 27g Identification and comments: radius - right
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 108g Identification and comments: radius & ulna - left	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 44g Identification and comments: astragalus - left
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 120g Identification and comments: tibia - left	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 16g Identification and comments: zygomatic
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 48g Identification and comments: pelvis	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 19g Identification and comments: calcaneus - right
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 2 Weight: 29g Identification and comments: mandible	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 7g Identification and comments: phalanx
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 17g Identification and comments: mandible - right	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 12g Identification and comments: tibia - right
Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 1 Weight: 112g Identification and comments: calcaneus - right	Context: 1175 Stratigraphic Phase: XVIII No. of fragments: 2 Weight: 58g Identification and comments: pelvis - left, right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 23g
Identification and comments: atlas

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 8g
Identification and comments: metacarpal

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 173g
Identification and comments: femur - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 20g
Identification and comments: patella

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 34g
Identification and comments: scapula - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 50g
Identification and comments: tibia

Context: 1191 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 9g
Identification and comments: temporal

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 12g
Identification and comments: radius

Context: 1206 Stratigraphic Phase:
No. of fragments: 1 Weight: 52g
Identification and comments: ulna

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 41g
Identification and comments: calcaneus - right

Context: 1206 Stratigraphic Phase:
No. of fragments: 2 Weight: 146g
Identification and comments: mandible - right

Context: 1208 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 19g
Identification and comments: lumbar vertebra

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 31g
Identification and comments: thoracic vertebra

Context: 1214 Stratigraphic Phase:
No. of fragments: 1 Weight: 32g
Identification and comments: scapula - right

Context: 1215 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 21g
Identification and comments: lumbar vertebra

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 116g
Identification and comments: metatarsal with cut marks

Context: 1216 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 34g
Identification and comments: lumbar vertebra

Context: 1228 Stratigraphic Phase: XIX
No. of fragments: 4 Weight: 7g
Identification and comments: metatarsal or metacarpal

Context: 1243 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 41g
Identification and comments: tibia

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 14g
Identification and comments: mandible - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 10g
Identification and comments: lumbar vertebra

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 55g
Identification and comments: humerus - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 45g
Identification and comments: tibia - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 92g
Identification and comments: lumbar vertebra

Context: 1191 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 25g
Identification and comments: mastoid process

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 18g
Identification and comments: calcaneus - left

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 9g
Identification and comments: calcaneus - right

Context: 1206 Stratigraphic Phase:
No. of fragments: 1 Weight: 50g
Identification and comments: metatarsal - right

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - left

Context: 1206 Stratigraphic Phase:
No. of fragments: 2 Weight: 52g
Identification and comments: femur - left, right

Context: 1208 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 7g
Identification and comments: thoracic vertebra

Context: 1213 Stratigraphic Phase:
No. of fragments: 1 Weight: 13g
Identification and comments: atlas vertebra

Context: 1214 Stratigraphic Phase:
No. of fragments: 1 Weight: 9g
Identification and comments: ulna - left

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 18g
Identification and comments: vertebra

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 22g
Identification and comments: atlas vertebra

Context: 1216 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 12g
Identification and comments: sacrum

Context: 1243 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 110g
Identification and comments: metatarsal - left

Context: 1290 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 22g
Identification and comments: pelvis

Faunal Remains

Context: 1292 Stratigraphic Phase:
No. of fragments: 1 Weight: 7g
Identification and comments: pelvis

Context: 1293 Stratigraphic Phase: XVI
No. of fragments: 1 Weight: 21g
Identification and comments: tarsal - with cut marks

Context: 1362 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 25g
Identification and comments: tibia - right

Context: 1399 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 36g
Identification and comments: mandible - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 2 Weight: 141g
Identification and comments: femur - left, right

Context: 1463 Stratigraphic Phase: XV
No. of fragments: 1 Weight: 48g
Identification and comments: metatarsal

Context: 1473 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 28g
Identification and comments: thoracic vertebra

Context: 1976 Stratigraphic Phase:
No. of fragments: 1 Weight: 27g
Identification and comments: mandible - right

Context: 1293 Stratigraphic Phase: XVI
No. of fragments: 1 Weight: 76g
Identification and comments: metatarsal

Context: 1361 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 176g
Identification and comments: tibia - left

Context: 1399 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 48g
Identification and comments: axis vertebra - with cut marks

Context: 1399 Stratigraphic Phase: XXXVI
No. of fragments: 2 Weight: 30g
Identification and comments: mandible

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 32g
Identification and comments: radius - left

Context: 1473 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 54g
Identification and comments: astragalus

Context: 1976 Stratigraphic Phase:
No. of fragments: 1 Weight: 39g
Identification and comments: radius - left

10.2.3 *Sus scrofa cristatus* (Indian wild pig)

Sus accounts for very little of the total bone count in period J, only 3.4 per cent, but by period I this has risen considerably to 14.9 per cent. *Sus* increases again in periods G and H to 27.3 per cent and 17.4 per cent respectively. This trend is similar to the overall *Bos* trend, where numbers increase from J to I, then decrease again in G and H, but not as low as J. In periods C, D & E and B, *Sus* bone numbers are approaching *Bos* numbers. *Sus* accounts for approximately one ninth of the total bone count over all periods examined. Table 10.2 shows the amount of *Sus* material recovered by period, in relation to the other major species. *Sus* is a wild species and normally avoids humans. Unlike *Axis*, it is a taboo animal according to the *Manudharmasastra* (Laws of Manu) (Muller 1967), which perhaps explains why it is present in such low numbers during period J. The considerable increase in period I can possibly be seen as a result of social change but may also be accounted for by the preference of *Sus* for living in marshy areas (Banks and Banks 1986). As irrigation practices increased during this time period, resulting alterations in the environment around the site may have created a habitat suited to *Sus* population expansion in this area. *Sus* bones have been recovered from the Gedige site at Anuradhapura (Deraniyagala 1972: 155) and, unlike

the *Bos* remains, these have been found at all levels. As the *Sus* at the Gedige has been found in conjunction with charcoal, as were all the bones from that site, this is thought to show that they represent food waste. Wild pigs are today found all over the island, in all ecozones (Banks and Banks 1986; Deraniyagala 1992: 508). Females and young pigs form groups of up to thirty animals, while older boars tend to hunt separately, and they have been known to become aggressive when hunted (Banks and Banks 1986; Deraniyagala 1992: 376). *Sus* is predominantly vegetarian, feeding on roots and tubers, but will also eat waste material and small insects, reptiles and mammals. Wild pigs can be serious pests of cultivation and, alongside the increased water through irrigation at ASW2, an increase in crops being grown in the region will have provided an attractive habitat for the animals. This may be part of the reason why their remains are found in growing numbers over time. As with *Bos* and *Axis*, there are no *Sus* teeth from period J in this sample. There are no elderly adult or ageing adult teeth from periods I, G or H and, from the total sample, the majority of teeth have been assigned to young adult or adult categories. This suggests that elderly or ageing animals were either not being hunted or were not living in close proximity to the site.

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 11.5g
Identification and comments: M2, adult

Context: 44 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.6g
Identification and comments: P4, ageing adult

Context: 73 Stratigraphic Phase: XCHII
No. of fragments: 1 Weight: 9.6g
Identification and comments: M1, P4, mandible, young adult

Context: 27 Stratigraphic Phase: C
No. of fragments: 1 Weight: 1.0g
Identification and comments: P2

Context: 56 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.6g
Identification and comments: M fragment

Context: 80 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.8g
Identification and comments: M1, young adult

Context: 88 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 1.6g
Identification and comments: M fragment

Context: 103 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 10.1g
Identification and comments: M3, broken, adult

Context: 256 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 5.8g
Identification and comments: M1, ageing adult

Context: 345 Stratigraphic Phase: XCIII
No. of fragments: 1 Weight: 33.6g
Identification and comments: M1, M2, M3 mandible, young adult

Context: 406 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 40.0g
Identification and comments: M3, mandible, young adult

Context: 409 Stratigraphic Phase: LXXXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: tibia - right

Context: 600 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 10g
Identification and comments: calcaneus - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 8g
Identification and comments: femur - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: phalanx

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 8g
Identification and comments: femur - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: tibia - left

Context: 604 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 29g
Identification and comments: radius - right

Context: 604 Stratigraphic Phase: LXXXV
No. of fragments: 1 Weight: 29g
Identification and comments: radius - left

Context: 604 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 12g
Identification and comments: femur

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: humerus - with cut marks

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 10g
Identification and comments: pelvis - left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 6g
Identification and comments: tarsal

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 22g
Identification and comments: calcaneus - left

Context: 90 Stratigraphic Phase: XCV
No. of fragments: 2 Weight: 6.9g
Identification and comments: M3, adult

Context: 105 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 8.7g
Identification and comments: M1, young adult

Context: 322 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 9.3g
Identification and comments: M fragment

Context: 378 Stratigraphic Phase: XCIII
No. of fragments: 1 Weight: 11.3g
Identification and comments: M2, broken, ageing adult

Context: 406 Stratigraphic Phase: XCI
No. of fragments: 1 Weight: 25.2g
Identification and comments: M3, adult

Context: 600 Stratigraphic Phase: XCV
No. of fragments: 1 Weight: 12g
Identification and comments: tibia - right

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - left

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 5g
Identification and comments: phalanx

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 5g
Identification and comments: radius - right

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 9g
Identification and comments: tibia - left

Context: 602 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 604 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 604 Stratigraphic Phase: LXXV
No. of fragments: 1 Weight: 12g
Identification and comments: femur

Context: 604 Stratigraphic Phase: LXXXV
No. of fragments: 1 Weight: 17g
Identification and comments: tibia - right

Context: 605 Stratigraphic Phase: LXXXIII
No. of fragments: 1 Weight: 8g
Identification and comments: humerus

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 2 Weight: 46g
Identification and comments: humerus - right, left

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 33g
Identification and comments: humerus

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 51g
Identification and comments: calcaneus - right

Context: 615 Stratigraphic Phase: LXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: humerus - right

Faunal Remains

Context: 615 No. of fragments: 1 Weight: 3g Identification and comments: radius - left	Stratigraphic Phase: LXVIII	Context: 615 No. of fragments: 1 Weight: 12g Identification and comments: pelvis - left	Stratigraphic Phase: LXVIII
Context: 615 No. of fragments: 2 Weight: 46g Identification and comments: humerus - left, right	Stratigraphic Phase: LXVIII	Context: 615 No. of fragments: 1 Weight: 22g Identification and comments: calcaneus - left	Stratigraphic Phase: LXVIII
Context: 615 No. of fragments: 1 Weight: 15g Identification and comments: humerus - right - with cut marks	Stratigraphic Phase: LXVIII	Context: 615 No. of fragments: 1 Weight: 3g Identification and comments: radius - left	Stratigraphic Phase: LXVIII
Context: 615 No. of fragments: 1 Weight: 10g Identification and comments: pelvis - right	Stratigraphic Phase: LXVIII	Context: 615 No. of fragments: 1 Weight: 33g Identification and comments: humerus - right	Stratigraphic Phase: LXVIII
Context: 615 No. of fragments: 1 Weight: 6g Identification and comments: tarsal	Stratigraphic Phase: LXVIII	Context: 615 No. of fragments: 1 Weight: 15g Identification and comments: calcaneus - right	Stratigraphic Phase: LXVIII
Context: 616 No. of fragments: 1 Weight: 44g Identification and comments: radius - left	Stratigraphic Phase: LXVIII	Context: 616 No. of fragments: 1 Weight: 44g Identification and comments: radius - left	Stratigraphic Phase: LXX
Context: 632 No. of fragments: 1 Weight: 11g Identification and comments: femur - left	Stratigraphic Phase: LXXXIII	Context: 632 No. of fragments: 1 Weight: 6g Identification and comments: femur - left	Stratigraphic Phase: LXXXIII
Context: 632 No. of fragments: 1 Weight: 17g Identification and comments: tibia - left	Stratigraphic Phase: LXXXIII	Context: 632 No. of fragments: 1 Weight: 51g Identification and comments: femur - left	Stratigraphic Phase: LXXXIII
Context: 632 No. of fragments: 1 Weight: 11g Identification and comments: femur - left	Stratigraphic Phase: LXXXIII	Context: 632 No. of fragments: 1 Weight: 6g Identification and comments: tibia - left	Stratigraphic Phase: LXXXIII
Context: 635 No. of fragments: 1 Weight: 11g Identification and comments: atlas vertebra	Stratigraphic Phase: LXXIII	Context: 635 No. of fragments: 1 Weight: 11g Identification and comments: atlas	Stratigraphic Phase: LXXXIII
Context: 659 No. of fragments: 1 Weight: 13g Identification and comments: pelvis - right	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 55g Identification and comments: femur - right	Stratigraphic Phase: LXXII
Context: 659 No. of fragments: 1 Weight: 25g Identification and comments: humerus - right	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 50g Identification and comments: humerus - right	Stratigraphic Phase: LXXII
Context: 659 No. of fragments: 1 Weight: 68g Identification and comments: tibia - right	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 16g Identification and comments: calcaneus - left	Stratigraphic Phase: LXXII
Context: 659 No. of fragments: 1 Weight: 13g Identification and comments: left pelvis	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 55g Identification and comments: femur - right - with cut marks	Stratigraphic Phase: LXXII
Context: 659 No. of fragments: 1 Weight: 25g Identification and comments: humerus - right	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 50g Identification and comments: humerus - right	Stratigraphic Phase: LXXII
Context: 659 No. of fragments: 1 Weight: 68g Identification and comments: tibia	Stratigraphic Phase: LXXII	Context: 659 No. of fragments: 1 Weight: 16g Identification and comments: calcaneus - left	Stratigraphic Phase: LXXII
Context: 663 No. of fragments: 1 Weight: 45g Identification and comments: femur - right	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 1 Weight: 3g Identification and comments: metapodial	Stratigraphic Phase: LXVI
Context: 663 No. of fragments: 1 Weight: 11g Identification and comments: ulna - left	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 1 Weight: 10g Identification and comments: femur - right	Stratigraphic Phase: LXVI
Context: 663 No. of fragments: 1 Weight: 45g Identification and comments: femur - right	Stratigraphic Phase: LXVI	Context: 663 No. of fragments: 1 Weight: 3g Identification and comments: metapodial - with cut marks	Stratigraphic Phase: LXVI

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 11g
Identification and comments: ulna - left

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 10g
Identification and comments: femur - right

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: femur

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 10g
Identification and comments: pelvis - left
Context: 692 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 20g
Identification and comments: mandible

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 15g
Identification and comments: mandible - left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 2g
Identification and comments: metapodial

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 21.2g
Identification and comments: C, mandible fragment

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: metapodial

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 7g
Identification and comments: atlas

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 60g
Identification and comments: femur - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: tibia

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g
Identification and comments: mandible

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 5g
Identification and comments: calcaneus - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: scapula - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 60g
Identification and comments: femur - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 14g
Identification and comments: tibia - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 12g

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 55g
Identification and comments: femur - right

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 27g
Identification and comments: femur - right

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: pelvis - left

Context: 670 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: femur

Context: 692 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - left
Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 22g
Identification and comments: pelvis - left

Context: 693 Stratigraphic Phase: LXXXIV
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - left

Context: 697 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 2g
Identification and comments: metapodial

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 11g
Identification and comments: scapula - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 19g
Identification and comments: pelvis - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 44g
Identification and comments: mandible

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: scapula

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 10g
Identification and comments: occipital

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 9g
Identification and comments: metapodial

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 7g
Identification and comments: atlas vertebra

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 19g
Identification and comments: pelvis - left

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 23g
Identification and comments: mandible

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 15g
Identification and comments: scapula - right

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 10g

- Identification and comments: mandible
- Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 5g
Identification and comments: calcaneus - right
- Context: 714 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 20g
Identification and comments: scapula - right
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 20g
Identification and comments: scapula - right
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 18g
Identification and comments: mandible
- Context: 714 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 18g
Identification and comments: mandible
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 30g
Identification and comments: tibia - right
- Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 20g
Identification and comments: occipital
- Context: 717 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 17g
Identification and comments: calcaneus - left
- Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 6g
Identification and comments: humerus - right
- Context: 727 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 2g
Identification and comments: femur - left
- Context: 727 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 24g
Identification and comments: scapula - right
- Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 26g
Identification and comments: occipital
- Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra
- Context: 728 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 32g
Identification and comments: atlas vertebra
- Context: 729 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 22g
Identification and comments: humerus - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 36g
Identification and comments: humerus - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 12g
Identification and comments: radius - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus
- Context: 744 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 24g
Identification and comments: tibia - left
- Identification and comments: occipital
- Context: 714 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 23g
Identification and comments: calcaneus - left
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 23g
Identification and comments: calcaneus - left
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - right
- Context: 714 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - right
- Context: 714 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 30g
Identification and comments: scapula - right
- Context: 715 Stratigraphic Phase: LXII
No. of fragments: 1 Weight: 14g
Identification and comments: tibia - right
- Context: 715 Stratigraphic Phase: LXII
No. of fragments: 3 Weight: 30g
Identification and comments: scapula - 2 right, left
- Context: 717 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 17g
Identification and comments: calcaneus - left
- Context: 721 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 29g
Identification and comments: humerus - right
- Context: 727 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 10g
Identification and comments: ulna - right
- Context: 727 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 24g
Identification and comments: scapula - right
- Context: 728 Stratigraphic Phase: LIV
No. of fragments: 1 Weight: 32g
Identification and comments: atlas
- Context: 728 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 26g
Identification and comments: occipital
- Context: 728 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 14g
Identification and comments: thoracic vertebra - with cut marks
- Context: 729 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 36g
Identification and comments: humerus - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 12g
Identification and comments: humerus - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 36g
Identification and comments: humerus - left
- Context: 739 Stratigraphic Phase: LXIII
No. of fragments: 1 Weight: 12g
Identification and comments: radius - left
- Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 13g
Identification and comments: scapula

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 31
Identification and comments: pelvis - right

Context: 777 Stratigraphic Phase: XLIV
No. of fragments: 1 Weight: 22g
Identification and comments: radius - right

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 9g
Identification and comments: pelvis - right

Context: 788 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 19g
Identification and comments: pelvis - left

Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 14g
Identification and comments: pelvis - right

Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 21g
Identification and comments: humerus - right

Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 21g
Identification and comments: pelvis - left

Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 20g
Identification and comments: ulna - right

Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 31g
Identification and comments: pelvis - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 33g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 18g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 33g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 29g
Identification and comments: atlas vertebra

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 20g
Identification and comments: mandible - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 52g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 2 Weight: 32g
Identification and comments: pelvis - left, right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 28g
Identification and comments: tibia

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 30g
Identification and comments: tibia - right

Context: 767 Stratigraphic Phase: LX
No. of fragments: 1 Weight: 24g
Identification and comments: tibia - right

Context: 777 Stratigraphic Phase: XLIV
No. of fragments: 1 Weight: 20g
Identification and comments: tibia - left

Context: 787 Stratigraphic Phase: XLIII
No. of fragments: 1 Weight: 12g
Identification and comments: axis vertebra

Context: 789 Stratigraphic Phase: LIII
No. of fragments: 1 Weight: 46g
Identification and comments: humerus - right

Context: 791 Stratigraphic Phase: XLVII
No. of fragments: 1 Weight: 32g
Identification and comments: thoracic vertebra

Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 2 Weight: 27g
Identification and comments: maxilla

Context: 831 Stratigraphic Phase: XXXIX
No. of fragments: 1 Weight: 24g
Identification and comments: calcaneus - left

Context: 834 Stratigraphic Phase: XXXVII
No. of fragments: 1 Weight: 19g
Identification and comments: pelvis - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 11g
Identification and comments: pelvis - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 24g
Identification and comments: pelvis - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 14g
Identification and comments: sacrum

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 35g
Identification and comments: parietal

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 21g
Identification and comments: humerus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 47g
Identification and comments: calcaneus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 35g
Identification and comments: humerus - left

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 41g
Identification and comments: humerus - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 30g
Identification and comments: radius - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 4g
Identification and comments: ulna - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 23g
Identification and comments: mandible - right

Faunal Remains

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 25g
Identification and comments: scapula - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 12g
Identification and comments: maxilla

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 18g
Identification and comments: thoracic vertebra

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 6g
Identification and comments: scapula

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 48g
Identification and comments: thoracic vertebra

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 17g
Identification and comments: ulna - left

Context: 885 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 20g
Identification and comments: lumbar vertebra

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 17g
Identification and comments: humerus - left

Context: 912 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 35g
Identification and comments: mandible - left

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 14g
Identification and comments: mandible - left

Context: 959 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 30g
Identification and comments: femur - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 2 Weight: 66g
Identification and comments: femur - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 16g
Identification and comments: scapula - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 4g
Identification and comments: zygomatic - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 17g
Identification and comments: maxilla - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 25g
Identification and comments: mandible

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 66g
Identification and comments: scapula - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 35g
Identification and comments: tibia - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 5g
Identification and comments: mandible - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 10g
Identification and comments: mandible - right

Context: 837 Stratigraphic Phase: XXXV
No. of fragments: 1 Weight: 12g
Identification and comments: pelvis - right

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 12g
Identification and comments: mandible - left

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 13g
Identification and comments: ulna - right

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 10g
Identification and comments: mandible

Context: 880 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 14g
Identification and comments: vertebra

Context: 894 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 10g
Identification and comments: mandible

Context: 905 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 7g
Identification and comments: ulna - left

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 17g
Identification and comments: ulna - right

Context: 914 Stratigraphic Phase: XXXII
No. of fragments: 1 Weight: 8g
Identification and comments: radius - right

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 22g
Identification and comments: mandible - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 73g
Identification and comments: humerus - left

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 6g
Identification and comments: phalanx

Context: 961 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 7g
Identification and comments: mandible - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 13g
Identification and comments: radius - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 6g
Identification and comments: scapula - left

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 34g
Identification and comments: femur - right

Context: 962 Stratigraphic Phase: XXX
No. of fragments: 1 Weight: 17g
Identification and comments: astragalus

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 9g
Identification and comments: metacarpal or metatarsal

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 50g
Identification and comments: pelvis - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 31g
Identification and comments: tibia - right - with cut marks

Context: 973 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 7g
Identification and comments: pelvis - right

Context: 974 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 11g
Identification and comments: tibia - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 80g
Identification and comments: tibia - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 30g
Identification and comments: scapula - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 35g
Identification and comments: femur - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: ulna - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 50g
Identification and comments: humerus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 28g
Identification and comments: humerus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: calcaneus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 16g
Identification and comments: zygomatic - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 6g
Identification and comments: frontal - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 21g
Identification and comments: ulna - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 12g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: maxilla

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 10g
Identification and comments: humerus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: pelvis - right

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 22g
Identification and comments: tibia - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 26g
Identification and comments: supraorbital ridge - left

Context: 970 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 8g
Identification and comments: scapula - right

Context: 974 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 27g
Identification and comments: calcaneus - right

Context: 975 Stratigraphic Phase: XXXI
No. of fragments: 1 Weight: 8g
Identification and comments: calcaneus - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 25g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 9g
Identification and comments: pelvis - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 39g
Identification and comments: humerus - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 37g
Identification and comments: pelvis - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 17g
Identification and comments: frontal - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 8g
Identification and comments: mandible - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 65g
Identification and comments: maxilla - left, right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 10g
Identification and comments: temporal

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 21g
Identification and comments: ulna - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: mandible - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 11g
Identification and comments: zygomatic - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 19g
Identification and comments: scapula - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 2 Weight: 52g
Identification and comments: radius - left, right

Faunal Remains

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 13g
Identification and comments: mandible

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 16g
Identification and comments: femur - left - with cut marks

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 15g
Identification and comments: ulna - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 20g
Identification and comments: scapula - with cut marks

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 8g
Identification and comments: zygomatic - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 21g
Identification and comments: mandible - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 18g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 18g
Identification and comments: mandible - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 12g
Identification and comments: pelvis - right

Context: 1124 Stratigraphic Phase: XXV
No. of fragments: 1 Weight: 7g
Identification and comments: metatarsal

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 2 Weight: 68g
Identification and comments: humerus - left, right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 8g
Identification and comments: metapodial

Context: 1125 Stratigraphic Phase: XXXIII
No. of fragments: 1 Weight: 10g
Identification and comments: radius - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 10g
Identification and comments: ulna - left

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 9g
Identification and comments: scapula - right

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 32g
Identification and comments: mandible - left

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 9g
Identification and comments: radius - left

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 5g
Identification and comments: tibia - left

Context: 1216 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 9g
Identification and comments: mandible

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 46g

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 24g
Identification and comments: mandible - right

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 24g
Identification and comments: pelvis - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 16g
Identification and comments: radius - left

Context: 977 Stratigraphic Phase: XXVIII
No. of fragments: 1 Weight: 35g
Identification and comments: parietal

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 12g
Identification and comments: mandible

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 5g
Identification and comments: humerus - right

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 12g
Identification and comments: carpal

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 17g
Identification and comments: scapula - left

Context: 1101 Stratigraphic Phase: XXVI
No. of fragments: 1 Weight: 6g
Identification and comments: mandible - left

Context: 1124 Stratigraphic Phase: XXV
No. of fragments: 1 Weight: 65g
Identification and comments: radius - right

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 24g
Identification and comments: tibia - left - with cut marks

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 1 Weight: 9g
Identification and comments: calcaneus - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 32g
Identification and comments: mandible - right

Context: 1172 Stratigraphic Phase: XXII
No. of fragments: 1 Weight: 5g
Identification and comments: maxilla

Context: 1172 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 16g
Identification and comments: scapula

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 1 Weight: 25g
Identification and comments: femur - left

Context: 1191 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 16g
Identification and comments: tibia - right

Context: 1208 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 33g
Identification and comments: mandible - left

Context: 1216 Stratigraphic Phase: XIX
No. of fragments: 1 Weight: 4g
Identification and comments: ulna - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 20g

Identification and comments: radius - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 1 Weight: 19g
Identification and comments: tibia - left

Identification and comments: radius - right

Context: 1403 Stratigraphic Phase: XVII
No. of fragments: 2 Weight: 39g
Identification and comments: calcaneus - left, right

10.2.4 *Parreysia corrugata* (freshwater corrugated clam)

The *Parreysia corrugata* remains consist of shell and account for not only the vast majority of all shells from ASW2 but also a significant proportion of the overall faunal remains as well. In period J they make up 18 per cent of the bone numbers, a larger proportion than either *Sus* or *Axis* in this period. In period I this percentage increases slightly, though not as much as the increase for the other major species examined. However, *Parreysia* still accounts for a greater percentage of the total bone numbers than *Sus* and equals that of *Axis*. The counts for periods G and H show a decline in *Parreysia* numbers to lower than the period J figure, and in percentage terms it then accounts for less of the total assemblage than any other single group of the main species. *Parreysia corrugata* is a freshwater clam belonging to the Bivalvia class of molluscs. The majority of freshwater bivalves are clams, of which there are more than 2,000 different species (Pearse *et al.* 1987: 347; Russell-Hunter 1983: 8). These clams rely on a single muscular foot for mobility and very few swim, hence they are easily gathered. Many freshwater clams, as well as

being edible, have shells that are considered desirable and attractive, and these may be collected for use in their own right (Pearse *et al.* 1987: 347). As freshwater clams are hermaphroditic and self-fertilizing, they can colonize an area of water very quickly and replenish and maintain their population numbers. These bivalves can inhabit running or stagnant water, and it is thought that almost every body of fresh water has at least one species of clam present. Freshwater clams can grow to up to 25 cm in length (ibid.: 349). As the environment of ASW2 has been demonstrated to consist of considerable bodies of water in the immediate vicinity of the site, in the form of irrigation tanks, as well as other areas of standing and possibly running water, this would present an number of ideal habitats. Given the ubiquity of freshwater clams, the ease of collection and the likelihood that individual specimens may have been quite sizeable, it is little surprise that the *Parreysia* shells make up such a considerable proportion of the total faunal remains.

Context: 601 Stratigraphic Phase: LXXII
No. of fragments: 1 Weight: 1g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 2 Weight: 5g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 692 Stratigraphic Phase: LXV
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 8g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 2g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 5g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 663 Stratigraphic Phase: LXVI
No. of fragments: 1 Weight: 5g
Identification and comments: shell

Context: 693 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 3g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 4g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 1g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 1g
Identification and comments: shell

Context: 698 Stratigraphic Phase: LXIV
No. of fragments: 1 Weight: 2g
Identification and comments: shell

Context: 1106 Stratigraphic Phase: XXXVI
No. of fragments: 4 Weight: 5g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 6 Weight: 17g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 13 Weight: 23g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 20 Weight: 26g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 13 Weight: 35g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 5 Weight: 8g
Identification and comments: shell

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 2 Weight: 9g
Identification and comments: shell

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 2 Weight: 7g
Identification and comments: shell

Context: 1215 Stratigraphic Phase: XXIII
No. of fragments: 13 Weight: 25g
Identification and comments: shell

Context: 1106 Stratigraphic Phase: XXXVI
No. of fragments: 1 Weight: 5g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 13 Weight: 25g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 16 Weight: 29g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 13 Weight: 35g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of fragments: 9 Weight: 17g
Identification and comments: shell

Context: 1175 Stratigraphic Phase: XVIII
No. of fragments: 2 Weight: 9g
Identification and comments: shell

Context: 1206 Stratigraphic Phase: XXXVI
No. of fragments: 9 Weight: 38g
Identification and comments: shell

Context: 1208 Stratigraphic Phase: XXI
No. of fragments: 1 Weight: 3g
Identification and comments: shell

10.3 Minor species

The range of minor species that have been recovered and identified from ASW2 is very wide. This diversity of types and their habitats, from marine mammals to freshwater molluscs, suggests that this material was arriving on site from a number of different sources and for many different purposes. While environmental and climatic change in the region could be posited as an explanation for the presence of some species not generally found in the area today because of the unsuitability of the habitat, it is unlikely B and indeed at times impossible B as an explanation for all the species present. When the marine content of the faunal assemblage is considered in conjunction with the archaeobotanical analysis, in particular the presence of mangrove wood charcoal, it strengthens the argument that the occupants of ASW2 were in close and possibly regular contact with occupants of a coastal site, or that they were travelling to the coast themselves and returning with plant and animal products. The presence of a range of reptiles and other animals requiring a water-based habitat indicates that the environment surrounding ASW2 was suitable for these animals. This corresponds with the archaeological and botanical evidence, which shows an increase in irrigation and water control, providing water or marshy ground over a sufficient area in the dry zone to support water-demanding species. In addition to the bone and shell remains, a number of artefacts made from organic material have been recovered from the excavations at ASW2. The type and quantity of marine shells may be indicative of their use as ornaments or jewellery as well as, or instead of, as a food source. A number of marine species present in the assemblage are represented by cores; this is in keeping with

the long tradition of using shell for decorative purposes (Kenoyer 1991: 216B17).

10.3.1 Mammals

The minor species present at ASW2 are of interest as they provide information about the site environment and possible changes in this environment over time, as well as being indicators of alternative or supplementary food sources. Deraniyagala (1992: 2, 373) places Anuradhapura in ecozone B, an area of dry lowland. Characteristic of this ecozone is the wide range of exploitable fauna, from reptiles, birds and fish to numerous mammals. This diversity is reflected in the species list from ASW2, of which the mammalian assemblage comprises the biggest single group. Within the mammal classification there is again a range of types present, from elephants, favouring a forest environment, through herd ungulates, which are most commonly found in areas of open vegetation, to small mammals such as hares and rats (ibid.). It is possible that the range of habitat requirements of the species represented is indicative of an environment that was changing or was dissimilar to its present state. Other explanations for the diversity of mammals may include trade or a willingness to travel some distance to hunt or obtain animals. Tables 10.4 and 10.5 show the total numbers of minor mammalian bones and teeth, respectively, recovered by period.

10.3.1.1 *Bandicota* sp. (bandicoot rat)

The genus *Bandicota* is a large rodent, with two species found in Sri Lanka, *bengalensis* and *indica* (Corbet and Hill 1992: 352). Bandicoots tend to prefer a more humid habitat than that generally found in the dry lowland area of Sri

Lanka, and *bengalensis* is also found in mangrove swamps (Banks and Banks 1986; Corbet and Hill 1992: 354). Bandicoots are primarily nocturnal animals, living in burrows. They like to be by water, which may explain their presence at ASW2 if they were taking advantage of the irrigation water supply, which would be fairly consistent

year round. Today, bandicoots are a known pest of cultivation, especially of rice fields and other cereals. Bandicoots are almost entirely vegetarian, with a diet of tubers in addition to cereals, but those inhabiting mangrove swamps will also eat small crabs (Banks and Banks 1986; Corbet and Hill 1992: 352B4; Roberts 1977: 274).

Context: 41 Stratigraphic Phase: C
No. of pieces: 1 Weight:
Identification and comments: **incisor, upper right**

Context: 87 Stratigraphic Phase: XCV
No. of pieces: 1 Weight:
Identification and comments: **incisor, lower right**

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **humerus - left**

10.3.1.2 *Bubalus bubalis bubalis* (domestic water buffalo)

This species of water buffalo is believed to have been domesticated in Southwest Asia sometime prior to 2000 BC (Corbet and Hill 1992: 265), although ancestral forms of *Bubalus* have been recovered from Ratnapura in Sri Lanka and Deraniyagala reports wild buffalo in Wilpattu (pers. comm.). Water buffalo have a dry-zone habitat distribution

and, as Ratnapura is today within the wet zone, this may suggest environmental change (Deraniyagala 1992: 57, 139). Modern ethnographic studies of the Wilpattu of Sri Lanka show that the water buffalo is kept by Sinhalese for milk and draught purposes rather than as a source of meat (ibid.: 395).

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 15g
Identification and comments: **molar- upper**

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 30g
Identification and comments: **tibia**

Context: 24 Stratigraphic Phase: C
No. of pieces: 1 Weight: 12g
Identification and comments: **molar**

Context: 27 Stratigraphic Phase: C
No. of pieces: 1 Weight: 40g
Identification and comments: **vertebra**

Context: 41 Stratigraphic Phase: C
No. of pieces: 1 Weight: 15g
Identification and comments: **mandible - left**

Context: 325 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 30g
Identification and comments: **rib - with cut marks**

Context: 355 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 50g
Identification and comments: **phalanx**

Context: 356 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 40g
Identification and comments: **axis vertebra - with cut marks**

Context: 365 Stratigraphic Phase: XCII
No. of pieces: 2 Weight: 10g
Identification and comments: **metatarsal or metacarpal**

Context: 404 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 20g
Identification and comments: **phalanx**

Context: 615 Stratigraphic Phase: LXVIII
No. of pieces: 1 Weight: 28g
Identification and comments: **radius**

Context: 615 Stratigraphic Phase: LXVIII
No. of pieces: 1 Weight: 28g
Identification and comments: **radius**

Context: 635 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 7g
Identification and comments: **mandible - right**

Context: 635 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 1g
Identification and comments: **molar**

Context: 635 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 4g
Identification and comments: **mandible**

Context: 635 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 2g
Identification and comments: **incisor, right**

Context: 638 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 38g
Identification and comments: **tibia - right**

Context: 638 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 38g
Identification and comments: **tibia - right**

Context: 670 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 107g
Identification and comments: **humerus - right**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 75g
Identification and comments: **humerus - left**

Context: 767 Stratigraphic Phase: LX
No. of pieces: 1 Weight: 63g
Identification and comments: **pelvis - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 107g
Identification and comments: **humerus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 2 Weight: 83g
Identification and comments: **humerus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 24g
Identification and comments: **pelvis - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 37g
Identification and comments: **metapodial - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 107g
Identification and comments: **humerus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 24g
Identification and comments: **pelvis - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 23g
Identification and comments: **vertebra**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 13g
Identification and comments: **ulna - left**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 24g
Identification and comments: **radius - right**

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 1 Weight: 50g
Identification and comments: **cloven**

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 1 Weight: 16g
Identification and comments: **sacrum**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 111g
Identification and comments: **humerus - right**
Context: 1206 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 107g
Identification and comments: **parietal - right**

Context: 1403 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 56g
Identification and comments: **mandible - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 23g
Identification and comments: **vertebra**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 83g
Identification and comments: **humerus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 37g
Identification and comments: **metatarsal - left**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 22g
Identification and comments: **radius - left**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 11g
Identification and comments: **sacrum**

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 2 Weight: 8g
Identification and comments: **lactors**

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 1 Weight: 18g
Identification and comments: **lumbar vertebra**

Context: 970 Stratigraphic Phase: XXXI
No. of pieces: 1 Weight: 14g
Identification and comments: **femur - right - cut marks**

Context: 1174 Stratigraphic Phase: XX
No. of pieces: 1 Weight: 40g
Identification and comments: **tibia - left**
Context: 1216 Stratigraphic Phase: XIX
No. of pieces: 1 Weight: 48g
Identification and comments: **ulna - left**

Context: 1403 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 55g
Identification and comments: **pelvis - right**

10.3.1.3 *Canis aureus lanka* or *Canis familiaris* (Ceylon jackal or domestic dog)

Canis sp. has been found in Mesolithic contexts in Sri Lanka and, although it is not known whether these finds represent wild or domesticated animals, there is speculation that dogs were being used to assist in hunting (Deraniyagala 1992: 454). This idea gains some support from ethnographic studies of Vadda hunters, who use dogs for driving game (ibid.: 382). *Canis aureus*, the golden jackal, is found in both open country and around towns and

villages; as well as being a scavenger and feeding on carrion it also preys on small rodents and eats fruits and berries (Banks and Banks 1986; Corbet and Hill 1992: 188). Jackals tend to prefer the lowland dry-zone regions but do exist in other habitats. They show nocturnal tendencies when living around humans (Banks and Banks 1986).

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 2g
Identification and comments: **lower canine**

Context: 17 Stratigraphic Phase: CXIII
No. of pieces: 1 Weight: 8g
Identification and comments: **left parietal**

Context: 27 Stratigraphic Phase: C
No. of pieces: 1 Weight: 6g
Identification and comments: **femur - right**

Context: 48 Stratigraphic Phase: XCVIII
No. of pieces: 1 Weight: 3g
Identification and comments: **metatarsal or metacarpal**

Context: 60 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **tibia - left**

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 6g
Identification and comments: **lumbar vertebra**

Context: 24 Stratigraphic Phase: C
No. of pieces: 1 Weight: 7g
Identification and comments: **pelvis**

Context: 41 Stratigraphic Phase: C
No. of pieces: 2 Weight: 6g
Identification and comments: **vertebra**

Context: 51 Stratigraphic Phase: XCIX
No. of pieces: 1 Weight: 45g
Identification and comments: **metatarsal or metacarpal**

Context: 83 Stratigraphic Phase: XCVI
No. of pieces: 1 Weight: 6g
Identification and comments: **thoracic vertebra**

Faunal Remains

Context: **88** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **8g**
Identification and comments: **calcaneus - right**

Context: **142** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **6g**
Identification and comments: **mandible - right**

Context: **200** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **5g**
Identification and comments: **mandible - right**

Context: **254** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **humerus - right**

Context: **262** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **coronoid process**

Context: **263** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **10g**
Identification and comments: **femur - left**

Context: **271** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **5g**
Identification and comments: **thoracic vertebra**

Context: **289** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **6g**
Identification and comments: **ulna - right**

Context: **313** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **1g**
Identification and comments: **premolar**

Context: **316** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **canine**

Context: **332** Stratigraphic Phase: **XCV**
No. of pieces: **2** Weight: **2g**
Identification and comments: **canines**

Context: **334** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **metatarsal or metacarpal**

Context: **365** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **10g**
Identification and comments: **femur - right**

Context: **366** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **rib**

Context: **376** Stratigraphic Phase: **LXXXVI**
No. of pieces: **1** Weight: **4g**
Identification and comments: **humerus - right**

Context: **409** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **15g**
Identification and comments: **femur - right**

Context: **427** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **6g**
Identification and comments: **cervical vertebra**

Context: **609** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **1g**
Identification and comments: **premolar**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **9g**
Identification and comments: **humerus - right**

Context: **718** Stratigraphic Phase: **LXV**
No. of pieces: **1** Weight: **6g**

Context: **112** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **7g**
Identification and comments: **pelvis - right**

Context: **158** Stratigraphic Phase: **XCV**
No. of pieces: **2** Weight: **6g**
Identification and comments: **canine & premolar**

Context: **251** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **5g**
Identification and comments: **mandible - left**

Context: **256** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **1g**
Identification and comments: **phalanx**

Context: **262** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **4g**
Identification and comments: **lumbar vertebra**

Context: **271** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **canine**

Context: **273** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **4g**
Identification and comments: **radius**

Context: **301** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **canine**

Context: **316** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3g**
Identification and comments: **mandible - left**

Context: **320** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **2g**
Identification and comments: **vertebra**

Context: **332** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **2g**
Identification and comments: **phalanx**

Context: **364** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **20g**
Identification and comments: **tibia - right**

Context: **365** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **5g**
Identification and comments: **upper molar**

Context: **367** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **premolar**

Context: **379** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **25g**
Identification and comments: **mandible - left**

Context: **416** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **7g**
Identification and comments: **atlas vertebra**

Context: **601** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **8g**
Identification and comments: **femur**

Context: **615** Stratigraphic Phase: **LXVIII**
No. of pieces: **1** Weight: **6g**
Identification and comments: **parietal**

Context: **701** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **5g**
Identification and comments: **maxilla - left**

Context: **726** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **11g**

Identification and comments: **humerus - left**

Context: 1244 Stratigraphic Phase: XIX (J)
No. of pieces: 1 Weight: 5g
Identification and comments: **axis vertebrae**

10.3.1.4 *Capra hircus* (goat)

Capra hircus, the domestic goat, is an important provider of milk and milk products in present-day South Asia (Corbet and Hill 1992: 273). There are no wild goats in Sri Lanka today, and it is not known if the ASW2 specimens represent wild or domestic animals. Deraniyagala (1992) does not list or discuss wild ancestors to the domestic form, and domestic goats were familiar in Asia by 100 BC

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 6g
Identification and comments: **humerus - left**

Context: 25 Stratigraphic Phase: XCVII
No. of pieces: 1 Weight: 3g
Identification and comments: **molar**

Context: 94 Stratigraphic Phase: CIII
No. of pieces: 1 Weight: 2g
Identification and comments: **molar**

Context: 270 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: **molar - upper**

Context: 365 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 6g
Identification and comments: **humerus - left**

Context: 373 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **premolar**

Context: 470 Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 20g
Identification and comments: **mandible - left**

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 2 Weight: 16g
Identification and comments: **molars**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 7g
Identification and comments: **palatinal**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 13g
Identification and comments: **molar**

Context: 707 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 40g
Identification and comments: **parietal**

Context: 715 Stratigraphic Phase: LXII
No. of pieces: 1 Weight: 6g
Identification and comments: **axis**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 8g
Identification and comments: **molar**

Context: 1101 Stratigraphic Phase: XXVI
No. of pieces: 1 Weight: 4g
Identification and comments: **molar**

Context: 1290 Stratigraphic Phase: XIX
No. of pieces: 1 Weight: 3g
Identification and comments: **molar**

Identification and comments: **femur - left**

Context: 1382 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 2g
Identification and comments: **mandible - right**

(Corbet and Hill 1992: 274). While wild goats generally prefer high and rocky ground, when kept in captivity they can adapt to a wide range of habitats (Roberts 1977: 190). Interpretations of the *Mahavamsa* suggest that goat and sheep were rarely kept as domestic animals and were certainly not as important as other known domesticates such as cattle (Geiger 1960: 91).

Context: 14 Stratigraphic Phase: CII
No. of pieces: 1 Weight: 8g
Identification and comments: **femur - right**

Context: 56 Stratigraphic Phase: XCIX
No. of pieces: 1 Weight: 8g
Identification and comments: **molar**

Context: 120 Stratigraphic Phase: XCVI
No. of pieces: 1 Weight: 8g
Identification and comments: **zygomatic - right**

Context: 283 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **lower molar**

Context: 368 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **molar - upper**

Context: 426 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 6g
Identification and comments: **molar**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **phalanx**

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 2 Weight: 16g
Identification and comments: **molars**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **atlas vertebra**

Context: 707 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 4g
Identification and comments: **molar, lower**

Context: 715 Stratigraphic Phase: LXII
No. of pieces: 1 Weight: 8g
Identification and comments: **molar, lower**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 81g
Identification and comments: **metapodial**

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 1 Weight: 11g
Identification and comments: **metatarsal**

Context: 1290 Stratigraphic Phase: XIX
No. of pieces: 1 Weight: 5g
Identification and comments: **molar**

10.3.1.5 *Cervus unicolor unicolor* (sambhur)

Cervus unicolor unicolor is the largest of the deer family found on Sri Lanka, one of the most widespread species in South Asia, and is hunted for both flesh and hide (Banks and Banks 1986; Corbet and Hill 1992: 256). It is nocturnal and frequently solitary, though sometimes found in small groups. The sambhur inhabits all of the environmental

zones of Sri Lanka and can be found in both open woodland and thicker forest cover (Banks and Banks 1986; Corbet and Hill 1992: 256). The animals also require access to waterholes in order to drink and to coat their skin in protective mud (Banks and Banks 1986).

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 4 g
Identification and comments: molar - lower

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 6g
Identification and comments: astragalus - left

Context: 15 Stratigraphic Phase: CXI
No. of pieces: 1 Weight: 20g
Identification and comments: antler - with cut marks

Context: 25 Stratigraphic Phase: XCVII
No. of pieces: 1 Weight: 4g
Identification and comments: molar

Context: 44 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 15g
Identification and comments: scapula - left

Context: 88 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 20g
Identification and comments: metatarsal

Context: 98 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: molar - lower

Context: 111 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 6g
Identification and comments: calcaneus - right

Context: 215 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: proximal phalanx

Context: 360 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 15g
Identification and comments: tibia - right

Context: 366 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 3g
Identification and comments: premolar

Context: 367 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 50g
Identification and comments: frontal - left

Context: 380 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 10g
Identification and comments: femur - left

Context: 615 Stratigraphic Phase: LXVIII
No. of pieces: 1 Weight: 14g
Identification and comments: molar, upper

Context: 697 Stratigraphic Phase: LXI
No. of pieces: 1 Weight: 4g
Identification and comments: lacrimal - right

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 13g
Identification and comments: occipital condyle - right

Context: 827 Stratigraphic Phase: XLIV
No. of pieces: 1 Weight: 31g

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 15g
Identification and comments: radius - left

Context: 15 Stratigraphic Phase: CXI
No. of pieces: 1 Weight: 2g
Identification and comments: premolar

Context: 25 Stratigraphic Phase: XCVII
No. of pieces: 1 Weight: 5g
Identification and comments: molar - upper

Context: 27 Stratigraphic Phase: C
No. of pieces: 1 Weight: 2g
Identification and comments: molar

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: premolar

Context: 92 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 15g
Identification and comments: mandible - left

Context: 107 Stratigraphic Phase: XCV
No. of pieces: 4 Weight: 5g
Identification and comments: molar pieces

Context: 134 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: molar - lower

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: molar

Context: 366 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 3g
Identification and comments: calcaneus - left

Context: 367 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 50g
Identification and comments: astragalus - right

Context: 367 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 6g
Identification and comments: upper molar

Context: 406 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6g
Identification and comments: lower premolar

Context: 693 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 14g
Identification and comments: upper molar

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 13g
Identification and comments: occipital - right

Context: 787 Stratigraphic Phase: XLIII
No. of pieces: 1 Weight: 3g
Identification and comments: zygomatic

Context: 1174 Stratigraphic Phase: XX
No. of pieces: 1 Weight: 12g

Identification and comments: **calcaneus - right**

Identification and comments: **atlas vertebra**

10.3.1.6 *Dugong dugon* (common dugong, or sea cow)

The presence of *Dugong dugon* at ASW2 is interesting, not only for the connection between this inland site and contact with the coast that this presents but also because dugong have been found concentrated in an area of coastal Sri Lanka to the north of the site of Mantai, which is also a source of mangrove on the island (Deraniyagala 1992: 377). As mangrove has been identified among the remains of wood charcoal at ASW2, this gives rise to speculation about specific links with this area. A dugong has also been recovered from Mantai and is thought likely to have been captured in the shallow waters offshore. Interestingly, at Mantai, 'A rib of the dugong had been employed to extract the meat of a large chank (*Turbinella pyrum*) . . .' (ibid.: 303). As the single dugong find from ASW2 is rib, and

Turbinella sp. have also been identified, this may indicate a specific practice of meat extraction from shells. Given the distance from ASW2 to the coast, it is unlikely that the meat of the dugong itself, or of the marine molluscs, would have been taken back to the site untreated. The meat may have been dried or salted in some other way to ensure it lasted the journey, but, given the single bone of this species found and the abundance of food around ASW2 itself, a more plausible explanation may be that the rib was used to get meat out of the shells for eating on the spot. The presence of the rib on site is then likely to be accidental. The habitat of the dugong is sheltered coastal waters, with sea grasses for grazing (Corbet and Hill 1992: 239).

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 45g
Identification and comments: **rib**

10.3.1.7 *Elephas maximus maximus* (Asian elephant)

The Sri Lankan form of the Asian elephant rarely has tusks, though either sex may develop 'tushes' or extended upper incisors (Banks and Banks 1986; Corbet and Hill 1992: 240). Elephants have been found in Mesolithic layers from the site of Bellan-bandi Palassa (Deraniyagala 1992: 306) but were not reported present in the faunal assemblage from the Gedige site at Anuradhapura (Deraniyagala 1972). Ethnographic accounts of the Vanniyas of the northern forested area of Sri Lanka state that elephants are hunted and killed primarily for their ivory, which was used for barter purposes. Elephants were also captured alive, and the implication is that they were then used for their strength – as traction animals rather than as a food source (Deraniyagala 1992: 375, 392, 395). The *Mahavamsa* chronicles state that elephants were used to prepare areas of ground prior to building, and ethnographic observation of

building construction and destruction in Sri Lanka also suggests that it is likely that elephants may have been used for haulage purposes (Coningham 1994b: 73). During the mediaeval period in Sri Lanka, elephants were considered very important animals and were largely owned by royalty or the wealthy (Geiger 1960: 91). As the identified elephant remains from ASW2 consist largely of worked or unworked ivory, with a single piece of bone, this seems consistent with the animals having value as an ivory source rather than as food. Elephants tend to prefer a habitat of open forest and jungle, with a plentiful water supply: they need to drink two to three times a day as well as using mud to coat their skin. They feed on grasses, fruits and leaves (Banks and Banks 1986; Corbet and Hill 1992: 240). For finished objects, please see section 10.3.1.18.

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 7g
Identification and comments: **ivory fragment**

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 7g
Identification and comments: **ivory fragment**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 81g
Identification and comments: **rib - with cut marks**

Context: 962 Stratigraphic Phase: XXX
No. of pieces: 1 Weight: 12g
Identification and comments: **ivory fragment**

10.3.1.8 *Equus caballus* (horse)

Deraniyagala suggests that, as the horse is a steppe animal and as the equatorial rain-forest habitat of Sri Lanka is unsuitable for it, it is likely to have been introduced sometime during the second millennium BC along with iron technology (Deraniyagala 1992: 710). Considered to have been introduced by humans, small feral herds of

ponies are found in the islands of Delft, Manaar and Puttalam off the northwest coast. Deraniyagala records that they are of a similar size to remains recovered from the Gedige excavations at Anuradhapura (1972: 157). The domestic horse is likely to be used for draught purposes, as well as being a source of milk and possibly meat.

Context: 612 Stratigraphic Phase: LXIX
No. of pieces: 1 Weight: 46.9g
Identification and comments: **M1, upper**

Context: 615 Stratigraphic Phase: LXVIII
No. of pieces: 3 Weight: 24g
Identification and comments: **molar**

Context: 664 Stratigraphic Phase: LXVII
No. of pieces: 1 Weight: 30g
Identification and comments: **P3, broken**

Context: 648 Stratigraphic Phase: LXIX
No. of pieces: 1 Weight: 33.9g
Identification and comments: **scapula**

Context: 819 Stratigraphic Phase: L
No. of pieces: 1 Weight: 13.7g
Identification and comments: M1, lower,

Context: 853 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 20.0g
Identification and comments: P2, upper

Context: 1125 Stratigraphic Phase: XXIII
No. of pieces: 1 Weight: 45g
Identification and comments: scapula - right

Context: 831 Stratigraphic Phase: XXXIX
No. of pieces: 1 Weight: 56.9g
Identification and comments: M2, upper

Context: 961 Stratigraphic Phase: XXX
No. of pieces: 1 Weight: 28.0g
Identification and comments: molar

Context: 1206 Stratigraphic Phase: XXXVI
No. of pieces: 2 Weight: 10g
Identification and comments: incisors

10.3.1.9 *Felis sp. (cat)*

Little is known about the introduction of the cat to Sri Lanka or whether these specimens represent *Felis silvestris* (wild cats), *Felis catus* (domestic cats) or feral cats. Cats

can live in a range of habitats, hunting rodents, birds and other small animals as well as scavenging human waste material (Corbet and Hill 1992: 219).

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 2g
Identification and comments: femur - left

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 2g
Identification and comments: radius

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 2g
Identification and comments: metatarsal

Context: 27 Stratigraphic Phase: C
No. of pieces: 1 Weight: 3g
Identification and comments: frontal - left

Context: 47 Stratigraphic Phase: XCVI
No. of pieces: 1 Weight: 3g
Identification and comments: humerus - right

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: mandible - right

Context: 87 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: tibia - right

Context: 88 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: astragalus - right

Context: 273 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: humerus - right

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: radius

Context: 417 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g
Identification and comments: metacarpal or metatarsal

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2g
Identification and comments: maxilla - left

Context: 831 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 10g
Identification and comments: femur

Context: 1206 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 3g
Identification and comments: tibia - left

10.3.1.10 *Herpestes sp. (mongoose)*

Four species of the genus *Herpestes* are known in Sri Lanka: *H. edwardsii*, *H. smithii*, *H. fuscus* and *H. vitticollis* - grey, ruddy, brown and stripe-necked mongooses respectively (Corbet and Hill 1992: 214). The mongoose is mainly diurnal and is known to be relatively adaptable, occupying a range of habitats. It burrows and can climb

trees if being pursued (Roberts 1977: 135). It eats some fruit and roots but mainly hunts small reptiles, mammals and their eggs. *H. vitticollis* is known to hunt crabs, fish, frogs and other animals that live within river or pond environments (Banks and Banks 1986; Corbet and Hill 1992: 214).

Context: 424 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g
Identification and comments: tibia - left

Context: 1177 Stratigraphic Phase: XXI (J)
No. of pieces: 1 Weight: 1g
Identification and comments: canine - upper

10.3.1.11 *Hystrix indica (Indian crested porcupine)*

The Indian crested porcupine occupies a wide range of habitats, from arid hillsides to dense rainforest, although there is some suggestion that it prefers low country, with thick vegetation for cover (Banks and Banks 1986; Corbet and Hill 1992: 410). The porcupine feeds on fruit, leaves, roots and bark and today is widely regarded as a major threat to both crops and trees, barking trees at ground level

and so killing them (Corbet and Hill 1992: 410). Porcupine (*Acanthion*) is recorded as present in level 4A at the Gedige by Deraniyagala (1972), but its significance is not discussed. The single tooth find at ASW2 suggests that the porcupine is not of significance as a food source or regularly hunted.

Context: 88 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: molar

Context: 1172 Stratigraphic Phase: XXII
No. of pieces: 1 Weight: 4g
Identification and comments: mandible - left

10.3.1.12 *Lepus nigricollis* (Ceylon black-naped hare)

The black-naped hare is found throughout the whole South Asian region in considerable numbers, and analyses of archaeological remains at Wilpattu (Deraniyagala 1992: 375) have shown that this was one of the most abundant exploited animals along with the spotted deer (*Axis axis ceylonensis*). *Nigricollis* is the only species of hare found in Sri Lanka, and there are no rabbits at all (Banks and Banks 1986). It prefers an open grassland or scrub habitat in which it can feed on grasses and leaves, but it has been found in all the ecozones of Sri Lanka (Deraniyagala 1992:

509). The black-naped hare is predominantly nocturnal around humans (Banks and Banks 1986; Corbet and Hill 1992: 413). At ASW2 it is found in a range of contexts and periods, in fairly substantial numbers. However, the quantity of remains is not comparable to those of the four main species found and this suggests that, for food purposes, hunting larger animals such as deer or pig was more rewarding in terms of meat than pursuing smaller animals such as the hare.

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **pelvis**

Context: 25 Stratigraphic Phase: XCVII
No. of pieces: 1 Weight: 2g
Identification and comments: **metatarsal or metacarpal**

Context: 42 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **metacarpal or metatarsal**

Context: 73 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: **scapula - left**

Context: 88 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **radius**

Context: 141 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **pelvis - left**

Context: 200 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: **pelvis**

Context: 254 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **scapula - right**

Context: 272 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **radius - left**

Context: 273 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: **pelvis**

Context: 305 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: **scapula - left**

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **incisor - upper**

Context: 325 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **ulna - left**

Context: 345 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: **pelvis**

Context: 356 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **humerus - right**

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 1g
Identification and comments: **premolar**

Context: 41 Stratigraphic Phase: C
No. of pieces: 1 Weight: 2g
Identification and comments: **femur - left**

Context: 73 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **mandible - left**

Context: 87 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **femur**

Context: 126 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **humerus - right**

Context: 158 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **pelvis - left**

Context: 254 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **humerus - left**

Context: 255 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **humerus - left**

Context: 272 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 6g
Identification and comments: **femur - left**

Context: 300 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: **premolar**

Context: 306 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: **tibia - right**

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: **femur - left**

Context: 334 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **scapula - right**

Context: 355 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 8g
Identification and comments: **pelvis - left - with cut marks**

Context: 356 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **tibia - right**

Faunal Remains

Context: **365** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **4g**
Identification and comments: **femur**

Context: **365** Stratigraphic Phase: **XCII**
No. of pieces: **2** Weight: **5g**
Identification and comments: **humerus - right**

Context: **367** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **4g**
Identification and comments: **pelvis - left**

Context: **376** Stratigraphic Phase: **LXXXVI**
No. of pieces: **1** Weight: **1g**
Identification and comments: **incisor - right**

Context: **385** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **3g**
Identification and comments: **metatarsal or metacarpal**

Context: **417** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **3g**
Identification and comments: **scapula - right**

Context: **426** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **4g**
Identification and comments: **tibia - left**

Context: **440** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **6g**
Identification and comments: **pelvis - left**

Context: **470** Stratigraphic Phase: **LXXXI**
No. of pieces: **1** Weight: **5g**
Identification and comments: **humerus - left**

Context: **602** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **tibia**

Context: **605** Stratigraphic Phase: **LXXXIII**
No. of pieces: **1** Weight: **4g**
Identification and comments: **pelvis**

Context: **615** Stratigraphic Phase: **LXVIII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **scapula - right**

Context: **615** Stratigraphic Phase: **LXVIII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **pelvis - left**

Context: **635** Stratigraphic Phase: **LXXIII**
No. of pieces: **1** Weight: **6g**
Identification and comments: **calcaneus - left**

Context: **659** Stratigraphic Phase: **LXII**
No. of pieces: **1** Weight: **3g**
Identification and comments: **tibia - right**

Context: **669** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **2g**
Identification and comments: **humerus - left**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **1g**
Identification and comments: **tibia - right**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **4g**
Identification and comments: **pelvis - left**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **2g**
Identification and comments: **pelvis**

Context: **365** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **3g**
Identification and comments: **scapula - left**

Context: **367** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **humerus - left**

Context: **369** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **3g**
Identification and comments: **scapula - right**

Context: **373** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **4g**
Identification and comments: **femur - right**

Context: **409** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **5g**
Identification and comments: **femur - right**

Context: **419** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **4g**
Identification and comments: **scapula - right**

Context: **437** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **5g**
Identification and comments: **calcaneus - right**

Context: **457** Stratigraphic Phase: **LXXXVI**
No. of pieces: **1** Weight: **4g**
Identification and comments: **scapula - right**

Context: **494** Stratigraphic Phase: **LXXV**
No. of pieces: **3** Weight: **4g**
Identification and comments: **molar and premolars**

Context: **602** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **tibia**

Context: **610** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **5g**
Identification and comments: **tibia**

Context: **615** Stratigraphic Phase: **LXVIII**
No. of pieces: **1** Weight: **2g**
Identification and comments: **scapula - right**

Context: **630** Stratigraphic Phase: **LXXVI**
No. of pieces: **1** Weight: **1g**
Identification and comments: **tibia - right**

Context: **659** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **3g**
Identification and comments: **tibia - right**

Context: **663** Stratigraphic Phase: **LXVI**
No. of pieces: **1** Weight: **1g**
Identification and comments: **lower incisor - right**

Context: **669** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **2g**
Identification and comments: **humerus**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **11g**
Identification and comments: **pelvis**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **11g**
Identification and comments: **tibia - left**

Context: **670** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **4g**
Identification and comments: **pelvis - left**

Context: 692 Stratigraphic Phase: LXV
No. of pieces: 1 Weight: 3g
Identification and comments: **sacrum**

Context: 697 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 5g
Identification and comments: **femur - left**

Context: 697 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **lower incisor - left**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2g
Identification and comments: **scapula - right**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **scapula - right**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 4g
Identification and comments: **femur**

Context: 714 Stratigraphic Phase: LXIII
No. of pieces: 1 Weight: 3g
Identification and comments: **pelvis - left**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 5g
Identification and comments: **pelvis - left**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 2g
Identification and comments: **tibia**

Context: 1172 Stratigraphic Phase: XXII
No. of pieces: 1 Weight: 24g
Identification and comments: **humerus - right**

Context: 1403 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 3g
Identification and comments: **femur - right**

Context: 693 Stratigraphic Phase: LXXXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **femur - right**

Context: 697 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **radius - left**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2g
Identification and comments: **calcaneus**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 16g
Identification and comments: **lumbar vertebra**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 4g
Identification and comments: **pelvis - right**

Context: 714 Stratigraphic Phase: LXIII
No. of pieces: 2 Weight: 4g
Identification and comments: **tibia - left, right**

Context: 714 Stratigraphic Phase: LXIII
No. of pieces: 1 Weight: 1g
Identification and comments: **tibia - right**

Context: 767 Stratigraphic Phase: LX
No. of pieces: 1 Weight: 1g
Identification and comments: **metapodial**

Context: 832 Stratigraphic Phase: XLII
No. of pieces: 1 Weight: 4g
Identification and comments: **pelvis - right**

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 3g
Identification and comments: **upper molar**

Context: 1473 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 5g
Identification and comments: **pelvis - right**

10.3.1.13 *Microchiroptera* sp. (insectivorous or carnivorous bats)

There are two suborders in the Chiroptera or bat order: Megachiroptera, the fruit bats, and Microchiroptera, which are smaller than the fruit bats, predominantly insectivorous and have teeth with sharper cusps (Corbet and Hill 1992: 54; Roberts 1977: 41). There are c. 230 species of Microchiroptera in the whole Asian region and almost all

use echo location to navigate (Corbet and Hill 1992: 81). They tend to roost in enclosed spaces. The presence of a single bone in the assemblage from ASW2 suggests that this is probably not an animal that is being exploited in any way and that it is more likely to be a chance occurrence.

Context: 306 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **humerus**

10.3.1.14 *Muntiacus muntjak malabaricus* (Southern Indian muntjak or barking deer)

M. muntjak is found throughout South Asia and is widespread over Sri Lanka, inhabiting a range of ecozones. It is known to prefer lower hills that provide adequate grazing and leaves for food (Banks and Banks 1986; Corbet and Hill 1992: 260). The barking deer is generally nocturnal, especially around humans, and tends to be found

singly or in very small groups rather than in large herds (Banks and Banks 1986). This would make it less suitable as a regular prey animal than other species of deer found at ASW2 and may explain the small number of remains recovered.

Context: 4 Stratigraphic Phase: CXIV
No. of pieces: 1 Weight: 7g
Identification and comments: **skull**

Context: 252 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 7g
Identification and comments: **humerus - left**

Context: 151 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: **lower molar - left**

Context: 304 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 4g
Identification and comments: **upper molar**

Context: 364 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 4g
Identification and comments: molar

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 4g
Identification and comments: femur - left

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 3g
Identification and comments: upper molar

10.3.1.15 *Pteropus giganteus giganteus* (Indian flying fox)

This is the largest bat species known in the South Asian region and is one of the twelve species of the *Pteropus* genus found there (Corbet and Hill 1992: 55; Roberts 1977: 38). It is part of the Megachiroptera, or fruit bat order, feeding on fruits, flowers, nectar and pollen, and is considered a pest of orchards and fruit trees. It is known to

travel up to twenty miles in one night to feed, although it does not possess echo location. Flying foxes roost in colonies of 100–600 bats and are found in all the ecological zones of Sri Lanka, except in the hilliest areas (Banks and Banks 1986; Corbet and Hill 1992: 55; Roberts 1977: 40).

Context: 364 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 8g
Identification and comments: radius

10.3.1.16 *Rattus* sp. (rat)

There are several different species of the *Rattus* genus found on the island, with *Rattus montanus* (Phillips 1932 [Corbet and Hill 1992: 346]) being endemic to Sri Lanka. The common house rat (*Rattus rattus*) is associated with

human habitation and cultivation. Other species inhabit areas of forest, scrub and even mangrove swamps (Banks and Banks 1986; Corbet and Hill 1992: 335, 337). In general, rats are omnivorous.

Context: 14 Stratigraphic Phase: CII
No. of pieces: 1 Weight: 1g
Identification and comments: lower incisor - right

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: lower incisor - right

Context: 100 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: tibia

Context: 367 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 1g
Identification and comments: femur - left

Context: 382 Stratigraphic Phase: LXXXIX
No. of pieces: 1 Weight: 1g
Identification and comments: upper incisor - right

Context: 390 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 1g
Identification and comments: pelvis - right

Context: 442 Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 1g
Identification and comments: femur - right

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 2 Weight: 1g
Identification and comments: upper & lower incisors

Context: 638 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 2g
Identification and comments: pelvis - right

Context: 659 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 11g
Identification and comments: pelvis - right

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 1 Weight: 1g
Identification and comments: tibia

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 1 Weight: 1g
Identification and comments: tibia

Context: 41 Stratigraphic Phase: C
No. of pieces: 1 Weight: 2g
Identification and comments: tibia

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: humerus - left

Context: 134 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: tibia

Context: 382 Stratigraphic Phase: LXXXIX
No. of pieces: 1 Weight: 2g
Identification and comments: mandible - left

Context: 386 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 1g
Identification and comments: femur - left

Context: 424 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 2g
Identification and comments: pelvis - left

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: humerus - right

Context: 635 Stratigraphic Phase: LXXIII
No. of pieces: 1 Weight: 1g
Identification and comments: femur - right

Context: 659 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 1g
Identification and comments: femur - left

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 1 Weight: 1g
Identification and comments: humerus

Context: 663 Stratigraphic Phase: LXVI
No. of pieces: 1 Weight: 5g
Identification and comments: atlas

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 1g
Identification and comments: pelvis - right

Context: 791 Stratigraphic Phase: XLVII
No. of pieces: 1 Weight: 14g
Identification and comments: pelvis - right

10.3.1.17 *Tragulus meminna* (Indian mouse deer or chevrotain)

Like the muntjak or barking deer, *T. meminna* is a solitary, largely nocturnal animal. Its habitat is the lowland jungles and hills, and it is found throughout South Asia (Banks and

Banks 1986; Corbet and Hill 1992: 252). The chevrotain does not have antlers, though males do have 'tushes', or elongated upper incisors (Banks and Banks 1986).

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 4g
Identification and comments: metatarsal

Context: 9 Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 3g
Identification and comments: mandible - right

Context: 49 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: ulna - left

Context: 76 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: mandible - left

Context: 111 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: mandible - right

Context: 142 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: mandible - right

Context: 304 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: tibia - right

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: tibia - right

Context: 365 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 1g
Identification and comments: radius - right

Context: 425 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6g
Identification and comments: mandible - left

Context: 470 Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 5g
Identification and comments: metatarsal

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: calcaneus - left

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 5g
Identification and comments: pelvis - left, right

Context: 880 Stratigraphic Phase: XXXIII
No. of pieces: 1 Weight: 18g
Identification and comments: scapula - left

Context: 1382 Stratigraphic Phase: XVII
No. of pieces: 1 Weight: 2g
Identification and comments: lumbar vertebra

10.3.1.18 Carved bone and ivory objects

A total of 22 bone and ivory objects were recovered from the excavations at ASW2. Their forms include one mirror stand, one draftsman, two handles, three bangles, four carved plaques, three vessels, one carved disc, four styli, two arrowheads and one dice (see Table 10.6). Whilst three were recovered from the fills of intrusive robber pits dating to the Polonnaruwa period and one from the foundation of the Anuradhapura period pillared hall, the remaining 18 objects are clearly concentrated within structural periods G and I – dating to between c. the fourth century BC and the first century AD (Table 10.6). Indeed, further concentrations were identified, with totals of two objects from phase G2, three from G3 and four from G4 and G5

respectively. Together they form an almost unique cohort of archaeological material from Sri Lanka and offer proof of excellence in early ivory and bone working, so well known in the island's later mediaeval period (Van Lohuizen De Leeuw 1981: 80–89). Where possible, analogies with similar objects have been made, although many of these are from Marshall's excavations in the Taxila valley (Marshall 1951). This is not to stress a clear connection (indeed, the two could be hardly be more distant), rather it stresses the uniqueness of this collection and the resultant scarcity of published sources within South Asia.

Mirror stand

Ivory special find 10196 has been identified as a mirror stand. This partially damaged object was recovered from the edge of wall 503ne and 494nw of structural phase G3. The stand has a flat base and was modelled from a single transverse section of tusk through lathe turning. It was decorated with a pronounced single torus relief moulding and a splayed base. The axial socket for the mirror's tang has been cut right through the stand. Similar examples (no. 56) have been recorded from Sirkap (Taxila), Patna

(Marshall 1951: 658), Kausambi (Sharma 1969: 97) and Adichanallur (Leshnik 1974). Marshall attributed dates of the first century BC and first century AD (Marshall 1951: 658), a date which correlates well with Sub-period IV at Kausambi (Sharma 1969). It should be noted that a fragment of copper-alloy mirror was tentatively identified from the excavations at trench ASW2 and is discussed in section 3.3.7 above.

Special find no: **10196** Context: **503ae**
 Stratigraphic Phase: **LXXXVI** Weight: **356g**
 Description: **Mirror stand.**
 Material: **Ivory.**
 Dimensions: **15.6cm high; 18.4cm maximum diameter; 11.6cm minimum diameter; 2.6cm socket diameter.**
 [Plates 1.4 and 10.1; Fig. 10.1]

Draftsman, counter or stopper

Special find 6619 was recovered from context 426, a foundation for the brick paved flooring of structural phase G5. Partially damaged, it is a flat lathe-turned, circular disc with a raised central boss feature on its upper side. The base is flat and the sides flare out to the upper surface, which is decorated with three concentric rings around the central boss. Four similar objects were recovered from the Bhira Mound (Taxila) and identified as draftsmen or

Special find no: **6619** Context: **426ae**
 Stratigraphic Phase: **LXXXVIII** Weight: **23.12g**
 Description: **Draftsman or stopper?**
 Material: **Ivory.**
 Comments: **raised central boss and concentric ring decoration.**
 Dimensions: **1.4cm high; 4cm diameter.**
 [Plate 10.2; Fig. 10.2]

Handles or terminals

Ivory sf 6530 has a pear-shaped head with lower concentric ring decoration. Only half of the lathe-turned object remains and it is unclear how it was attached as its base is broken. It was recovered from the packing foundations of context 405, the brick pavement of structural phase G5. The date of the object is uncertain as it was recovered from an artificial foundation layer, but it must date from at least the first century AD. A very similar example was recovered

Special find no: **6530** Context: **409ae**
 Stratigraphic Phase: **LXXXVIII** Weight: **2.47g**
 Description: **Handle or terminal?**
 Material: **Ivory.**
 Comments: **pear-shaped head with three concentric ring decorations - broken base.**
 Dimensions: **2.6cm high; 1.2cm diameter (max); 0.8 cm diameter (min).**
 [Fig. 10.3]

Bangles

Three incomplete ivory bangles were recovered from the excavations at trench ASW, sfs 8278, 7236 and 1569. The incomplete bangle sf 8278 is D-shaped in cross-section and has a diameter of 8.2 cm, sf 7236 is circular in cross-section and has a slightly smaller diameter of 5.3 cm, and sf 1569 is circular in cross-section and has a diameter of 7.1 cm. All showed evidence of lathe-turning and are presumed to have been transverse sections of tusk. Bangle sf 8278 was recovered from the interface between context 507sw, a wall, and context 494nw, an old land surface: both are associated with structural phase G3. Sf 7236 was recovered

Special find no: **8278** Context: **507sw**
 Stratigraphic Phase: **LXXXVI** Weight: **7.83g**
 Description: **Incomplete bangle.**
 Material: **Ivory.**
 Dimensions: **30% survives; 8.2cm diameter, 0.5cm wide, 0.9cm thick.**
 Comments: **D-shaped cross-section.**
 [Fig. 10.3]

counters (Marshall 1951: 662), however it is equally possible that they functioned as lids or stoppers for ceramic or stone vessels. Objects from structural period G may be dated to between the first quarter of the third century cal. BC and the latter half of the first century cal. AD (Coningham and Batt 1999: 129), a range in agreement with Marshall's postulation of between the fifth and third centuries BC (Marshall 1951: 662).

from Strata II at Sirkap (Marshall 1951: 666).

Ivory sf 16406 has also been tentatively identified as a handle or terminal. It has a flat-topped head surmounting an octagonal body decorated by two deeply etched lines. As its base is fractured, it is unclear how it was attached. It was recovered from old land surface 837, into which the structures of structural phase I6 were cut, providing a tentative date of c. the second or third century BC.

Special find no: **16406** Context: **837se**
 Stratigraphic Phase: **LXXXV** Weight: **4.12g**
 Description: **Handle or terminal?**
 Material: **Ivory.**
 Comments: **flat-topped head surmounting an octagonal body decorated by two deeply etched lines - broken base.**
 Dimensions: **2.5cm high; 1.9cm width (max); 1.1cm width (min).**
 [Plate 10.3]

from context 492, an old land surface into which the buildings of structural phase G3 were cut. Sf 1569 was recovered from context 262, the fill of robber pit 274. As the latter was recovered from structural period D, its date is uncertain since it came from a widely mixed context. Finds of ivory bangles are relatively rare, one having been recovered from Deraniyagala's excavations at the Citadel of Anuradhapura (Deraniyagala 1972: 143), six from the excavations at Hastinapura (Sharma 1969: 95) and only four from Marshall's excavations at Taxila (1951: 652). Generally, their age range is very broad.

Special find no: **7236** Context: **492se**
 Stratigraphic Phase: **LXXXV** Weight: **4.48g**
 Description: **Incomplete bangle.**
 Material: **Ivory.**
 Dimensions: **40% survives; 5.3cm diameter, 0.5cm wide, 0.7cm thick.**
 Comments: **Circular cross-section.**
 [Fig. 10.3]

Special find no: 1569 Context: 262se
 Stratigraphic Phase: XCV Weight: 8.51g
 Description: Incomplete bangle.
 Material: Ivory.
 Dimensions: 15% survives; 7.1cm diameter, 1.1cm wide, 0.8cm thick.
 Comments: Circular cross-section.
 [Plate 10.3; Fig. 10.3]

Carved plaques

Four incomplete plaques, one ivory and three bone, were recovered from within two phases of structural period G, which is dated to between the first quarter of the third century cal. BC and the latter half of the first century cal. AD (Coningham and Batt 1999: 129). While sf 6810 was recovered from context 468 and sfs 6988 and 6981 from context 487, all three were found within contemporary old land surfaces underlying the buildings of structural phase G4. The fourth object, sf 6372, was recovered from context 409, which represented the foundation packing for the limestone and brick paved platforms of structural phase G5. Whereas the first three are clearly rectangular plaques with one or two holes drilled close to the surviving terminal, sf 6810 represents an anomaly by being more massive and having four surviving holes forming a square of 7.5 cm. Ivory plaque sf 6810 was finely carved and smoothed, while the three bone examples were less finished.

The function of these plaques is far from certain and they may have some affinities with composite combs, notably their side plates which are largely rectangular and drilled (MacGregor 1985: 83). As finds of composite combs are rare in South Asia, most formed out of a single

bone or ivory piece (Marshall 1951: 655), it is interesting to note the stronger similarities between sfs 6810, 6988 and 6981 and eighteenth- and nineteenth-century examples of ola or palm leaf manuscript covers. For example, wooden covers measuring 29.8 cm by 5.5 cm enclose the palm leaves of National Museum Library manuscript 82/N.10, wooden covers measuring 27 cm by 5.5 cm enclose National Museum Library manuscript 69/H.16, and ivory covers measuring 18 cm by 8.5 cm enclose University of Peradeniya Museum manuscript H.2 (Van Lohuizen De Leeuw 1981: 104–106). All these examples have between one and seven holes, allowing the manuscript leaves to be joined by string. It should also be noted that copper-plate grants of the twelfth century AD share a similar form, as illustrated by four copper sheets of Anuradhapura Museum No. 485, which measure 21.7 cm by 7.8 cm and are bound by a copper-alloy ring piercing all the sheets (ibid.: 101). As noted elsewhere (Coningham *et al.* 1996), while the perishable writing materials – ola or palm leaves – may not have survived, these ivory and bone plaques may represent the strongest, and earliest, indirect evidence of the origins of this Sri Lankan art.

Special find no: 6810 Context: 468ne
 Stratigraphic Phase: LXXXI Weight: 19.75g
 Description: Plaque.
 Material: Ivory.
 Dimensions: 10.2cm long; 3.1cm wide; 0.6cm maximum thick.
 Comments: Single hole (0.55cm diameter) drilled through plaque close to terminal with adjacent dot and two concentric rings - three incised lines at terminal.
 [Plate 10.4; Fig. 10.4]

Special find no: 6988 Context: 487ne
 Stratigraphic Phase: LXXXI Weight: 26.78g
 Description: Plaque.
 Material: Bone.
 Comments: Two holes (0.5cm diameter) drilled through plaque - a series of short faint parallel lines at the terminal and less regular ones below
 Dimensions: 8.1cm long; 5.1cm wide; 0.6cm maximum thick.
 [Plate 10.4; Fig. 10.4]

Special find no: 6981 Context: 487ne
 Stratigraphic Phase: LXXXI Weight: 23.85g
 Description: Plaque.
 Material: Bone.
 Comments: Single hole (0.55cm diameter) drilled through plaque close to terminal.
 Dimensions: 7.3cm long; 4.2cm wide; 0.5cm maximum thick.
 [Plate 10.5; Fig. 10.5]

Special find no: 6372 Context: 409nw
 Stratigraphic Phase: LXXXVIII Weight: 51.27g
 Description: Plaque
 Material: Bone.
 Comments: Four holes (0.55cm diameter) drilled through plaque to form square of 7.5cm.
 Dimensions: 10.0cm long; 11.6cm wide; 1.0cm maximum thick.
 [Plate 10.5; Fig. 10.5]

Vessels

Two ivory vessel lids, sfs 6370 and 8025, and one ivory vessel base, sf 6970, were recovered from the excavations at trench ASW2. Stretching in date from Polonnaruva contexts to the Early Historic period, they support the acknowledged history of excellence in ivory-working in the island (Van Lohuizen De Leeuw 1981: 80–89). Vessel lid sf 6370 was excavated within context 410, part of the fill of a late well or midden cut (535) into one of the later robber pits (313) cutting the 'Anuradhapura-period' stone pillared hall. The lathe-turned lid is largely complete; it has a raised central handle-boss and is decorated with three concentric rings on the exterior. These rings or grooves are still filled with red and black pigment. The interior is undecorated and

has a low boss feature immediately under the handle. Recovered from the fill of a Polonnaruva intrusive robber pit, its date is by no means certain. That lathe-turning technology, necessary for the manufacture of such an object, was available at an earlier date is supported by the presence of sfs 6970 and 8025. Indeed, it is notable that sfs 6370 and 6970 are very similar in style, indicating that either this style was long-lived or that sf 6370 originates from an earlier context. The use of red and black line decoration on ivory is usually associated with the Kandyan period of the seventeenth to nineteenth centuries AD, as illustrated by the spiral decoration on stupa-shaped reliquary no. 5 from the University of Peradeniya Museum

(Van Lohuizen De Leeuw 1981: 68). However, the presence of pigment in sf 6370's circular rings or grooves does not entirely confirm the date as earlier example sf 8025 also has such grooves but they are empty. Whether they were designed to be empty or whether they were also originally filled is unknown.

Vessel base sf 6970 was found within context 487, part of the old land surface into which the features of structural phase G4 were cut. An incomplete base, it is lathe-turned and has a low lip on the interior with a low raised central boss feature. On its exterior, it has a moulded foot decorated with dot and four concentric rings. As noted above, objects from structural period G may be dated to between the first quarter of the third century cal. BC and the latter half of the first century cal. AD. Very different from the flattened globular caskets discussed below, both sfs 6370 and 6970 have similarities with Bhojpur reliquary 24 (Willis 2000: fig. 114) and Satdhara reliquary 9 (ibid.: fig. 80) – both dated by Willis to the first century BC (ibid.: 82, 94).

Vessel lid sf 8025 was recovered from foundation makeup 409nw, supporting the brick paving of structural phase G5. A complete example, it is lathe-turned with a

raised central handle-boss. Globular and slightly squat, the interior is undecorated, but the exterior is cut by three narrow concentric bands. It is possible that these cuts or grooves were originally decorated with pigment as in sf 6370 but that they have been abraded by taphonomic processes. As already noted, objects from this period may be dated to between the first quarter of the third century cal. BC and the latter half of the first century cal. AD. Unlike sfs 6370 and 6970, there is an entire cohort of objects sharing similarities with sf 8025, classified as toilet caskets by Marshall (1951: 498). They are usually made of stone, and Marshall identified their function as being for toilet purposes as well as acting as 'convenient receptacles for the sacred relics enshrined in stupas' (ibid.: 498). Early ivory examples from Dharmarajika are likewise lathe-turned but have very different shapes (ibid.: plate 49), and a clear correspondence in terms of shape may be found between lid sf 8025 and lid 99 (ibid.: 499) from stratum II of Sirkap – first to second century AD. This type is common, as illustrated by the large numbers recovered from late second century BC Sanchi and its environs (Willis 2000: 72).

Special find no: **6370** Context: **410sw**
Stratigraphic Phase: **XCV** Weight: **18.46g**
Description: **Vessel lid.**
Material: **Ivory.**
Comments: **raised central boss and three concentric rings decoration on exterior, filled with pigment.**
Dimensions: **1.4cm high; 8.2cm diameter.**
[Plates 1.4 and 10.6; Fig. 10.6]

Special find no: **8025** Context: **409nw**
Stratigraphic Phase: **LXXXVIII** Weight: **21.60g**
Description: **Vessel lid.**
Material: **Ivory.**
Comments: **raised central handle-boss, three concentric rings on exterior.**
Dimensions: **1.9cm high; 5.4cm diameter.**
[Plate 10.8; Fig. 10.8]

Carved disc

Sf 15686 is an incomplete disc of ivory with a relief decoration set inside a beaded ring, itself defined by a very shallow curb. Not enough of the decoration survives in order to identify the relief motif. It was recovered from

Special find no: **15686** Context: **600ne**
Stratigraphic Phase: **XCV** Weight: **3.82g**
Description: **carved disc.**
Material: **Ivory.**
Comments: **Incomplete disc with relief decoration set within beaded ring and shallow curb - base is plain.**
Dimensions: **0.5cm thick; 4.8cm diameter.**
[Plate 10.9; Fig. 10.3]

Styli

Three bone and one ivory objects, sfs 15115, 16673, 10459 and 15026, have been tentatively identified as styli on account of their morphology, despite the latter being incomplete. Both sfs 15115 and 15026 were recovered from structural phase G2, the former from the fill of pit cut 636 and the latter from 602nw, an old land surface. Sfs 16673 and 10459 are older. Both were recovered from structural period I, sf 16673 from the fill of pit 969, cut into

context 600, representing the cleaning of the central earth support of the trench: the fill of the Polonnaruva period robber pit 279.

phase I4, and sf 10459 from old land surface 977nw, into which the activities of phase I3 were cut. Such artefacts are not uncommon within Early Historic sequences and over 80 were recovered from the University of Allahabad's excavations at Hastinapura (Sharma 1969: 93), four from Deraniyagala's excavations at the Gedige site within Anuradhapura (Deraniyagala 1972: 131) and thirteen from the sites of the Bhira Mound and Sirkap, Taxila (Marshall

1951: 660). The early date of the finds from the early phases of structural period I, c. fourth century BC, provides

further indirect evidence for the early development of writing within the island (Coningham *et al.* 1996).

Special find no: 15115 Context: 634nw
Stratigraphic Phase: LXIX Weight: 4.94g
Description: Stylⁱ?
Material: Bone.
Comments: Smoothed plain point and flattened square butt.
Dimensions: 7.6cm long; 0.9cm maximum diameter.
[Fig. 10.3]

Special find no: 10459 Context: 977nw
Stratigraphic Phase: XXVIII Weight: 5.90g
Description: Stylⁱ?
Material: Bone.
Comments: Irregular plain point and irregular butt.
Dimensions: 9.3cm long; 1.2cm maximum diameter.
[Fig. 10.3]

Special find no: 16673 Context: 970sw
Stratigraphic Phase: XXXI Weight: 5.31g
Description: Stylⁱ?
Material: Bone.
Comments: Smoothed plain point and rounded butt.
Dimensions: 8.1cm long; 0.9cm maximum diameter.
[Fig. 10.3]

Special find no: 15026 Context: 602nw
Stratigraphic Phase: LXXII Weight: 4.99g
Description: Stylⁱ?
Material: Ivory.
Comments: Broken point and rounded butt.
Dimensions: 7.3cm long; 0.9cm maximum diameter.
[Plate 10.9; Fig. 10.3]

Arrowheads

Two bone objects, sfs 15687 and 16589, have been tentatively identified as arrowheads. Both have smoothed tips divided from well-defined tangs by projecting flanges, allowing their fitting into wooden hafts. Sf 15687 was recovered from structural phase G2 and sf 16589 from structural phase I5, suggesting dates of c. the fourth and third centuries BC. Similar examples were recorded at

Anuradhapura by Deraniyagala (1972: 131) and by Marshall at the site of the Bhir Mound, Taxila, and were also dated to between the third and fourth centuries BC (Marshall 1951: 665). Marshall's suggestion (1951: 664) that such arrowheads might have been used for the hunting of birds is supported by more recent ethnographic studies (MacGregor 1985: 163).

Special find no: 15687 Context: 601se
Stratigraphic Phase: LXXII Weight: 3.47g
Description: Arrowhead.
Material: Bone.
Dimensions: 4.6cm long; 0.9cm head diameter; 0.3cm tang diameter.
[Plate 10.10; Fig. 10.3]

Special find no: 16589 Context: 880nw
Stratigraphic Phase: XXXIII Weight: 2.92g
Description: Arrowhead.
Material: Bone.
Dimensions: 3.4cm long; 0.9cm head diameter; 0.5cm tang diameter.
[Plate 10.10; Fig. 10.3]

Cube, bead or dice

Sf 5594 is a bone cube with clear evidence of having been sawn from a larger piece. It was recovered from structural phase F, which is dated to between the fourth and seventh centuries AD, although it may have been incorporated from the earlier deposits which form the foundation packing of the pillared building. The object's function is equally

unclear since it might represent an incompletely drilled bead or an incompletely marked dice. Examples of dice from the excavations at Sirkap and Sirsukh, Taxila, are all oblong or parallel piped (Marshall 1951: 662) and the cubic form commonly associated with Roman influence (MacGregor 1985: 129).

Special find no: 5594 Context: 365ne
Stratigraphic Phase: XCII Weight: 2.95g
Description: Cube.
Material: Bone.
Dimensions: 0.9cm square.
Comments: Single hole (0.5cm diameter) on face one, dot and one concentric ring on face two, dot and two concentric rings on face three, partial concentric ring on face four, nothing on faces five and six.
[Fig. 10.3]

10.3.2 Birds

In addition to the two main species of birds identified at ASW2, fowl (*Gallus* sp.) and Indian peafowl (*Pavo cristatus*), a number of unidentified bird bones were recovered. One possible source of this unknown material could be migrating flocks. Deraniyagala (1992: 375) points out that Sri Lanka is on the flight path of many seasonal bird migration routes. Given the taboos placed on a wide range of birds in the *Laws of Manu* (see section 10.2 above) (Coningham and Young 1999), it may be suggested that perhaps the majority of bones represent known types. In his

discussion of the *Mahavamsa* chronicles, Geiger says that the keeping and breeding of domestic poultry is rare, but fowl is eaten (1960: 91). It is possible that wild birds were taking advantage of the regular food supply provided by both the increase in cultivation around Anuradhapura and the settlement itself and in turn were being captured for sport or as a food source, or even as a supply of feathers or other items. Table 10.7 lists the weight of bones recovered for each species by period.

10.3.2.1 *Gallus* sp. (jungle or domestic fowl)

There are three species of the genus *Gallus* known in South Asia (*G. sonneratii*, *G. gallus* and *G. lafayettii*). However, *G. lafayettii* (Lesson 1831 [Ali and Ripley 1969: 109]), or the Ceylon red jungle fowl, is endemic and limited to Sri Lanka. It is not known whether the bones identified as

Context: 14 Stratigraphic Phase: CII
No. of pieces: 1 Weight: 4g
Identification and comments: **tibio-tarsus**

Context: 100 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **tibio-tarsus**

Context: 259 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **corocoid - right**

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 4g
Identification and comments: **femur**

Context: 367 Stratigraphic Phase: XCH
No. of pieces: 1 Weight: 2g
Identification and comments: **corocoid - right**

Context: 376 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 4g
Identification and comments: **humerus - left**

Context: 385 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g
Identification and comments: **humerus - left**

Context: 389 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4g
Identification and comments: **humerus**

Context: 424 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 5g
Identification and comments: **tarsometatarsus**

Context: 446 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 4g
Identification and comments: **carpo-metacarpus**

Context: 602 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 1g
Identification and comments: **ulna**

Context: 670 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2g
Identification and comments: **humerus - right**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **pelvis**

Context: 714 Stratigraphic Phase: LXIII
No. of pieces: 1 Weight: 2g
Identification and comments: **humerus - right**

Context: 1175 Stratigraphic Phase: XVIII
No. of pieces: 1 Weight: 2g
Identification and comments: **corocoid - right**

Gallus sp. from ASW2 are wild or domesticated, or which species they belong to (Ali and Ripley 1969: 102). Jungle fowl are found in all the habitat types of Sri Lanka and feed mainly on grains, weed seeds, berries, insects and small lizards (ibid.: 110).

Context: 25 Stratigraphic Phase: CX
No. of pieces: 1 Weight: 3g
Identification and comments: **scapula**

Context: 180 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 4g
Identification and comments: **humerus**
Context: 296 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **scapula - right**

Context: 365 Stratigraphic Phase: XCH
No. of pieces: 1 Weight: 2g
Identification and comments: **femur - left**

Context: 367 Stratigraphic Phase: XCH
No. of pieces: 1 Weight: 2g
Identification and comments: **tibio-tarsus**

Context: 376 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 2g
Identification and comments: **carpo-metacarpus**

Context: 386 Stratigraphic Phase: XCI
No. of pieces: 2 Weight: 7g
Identification and comments: **humerus, femur**

Context: 416 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6g
Identification and comments: **humerus - right**

Context: 444 Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 3g
Identification and comments: **tibio-tarsus**

Context: 602 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 2g
Identification and comments: **tarsometatarsus**

Context: 670 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2g
Identification and comments: **scapula - left**

Context: 697 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **tibio-tarsus - left**

Context: 714 Stratigraphic Phase: LXIII
No. of pieces: 1 Weight: 2g
Identification and comments: **tibio-tarsus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 2g
Identification and comments: **corocoid - left**

Context: 1206 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 5g
Identification and comments: **femur - right**

10.3.2.2 *Pavo cristatus* (common peafowl)

The peafowl is approximately the size of a domesticated turkey, with the peacock being 92–122 cm high and the peahen around 86 cm high (Ali and Ripley 1969: 123). When wild, peafowl gather in small flocks of one male and between three and five females. They prefer forest to open land, though they are often found near cultivation, which may be because they require running water. The peafowl

diet is omnivorous, including seeds, grains, nuts, shoots, small reptiles and snakes. The peafowl is sacred in Hindu myth and as such is protected on religious grounds (ibid.: 124, 126) despite being destructive of crops. It is mentioned in the *Mahavamsa* (Geiger 1960: 16) and the tail feathers of the male are greatly valued.

Context: 365 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 8g
Identification and comments: **femur - right**

Context: 445 Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 4g
Identification and comments: **femur**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 9g
Identification and comments: **humerus - right**

Context: 788 Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 8g
Identification and comments: **tarso-metatarsal - left**

Context: 413 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4g
Identification and comments: **coracoid - right**

Context: 659 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 2g
Identification and comments: **scapula**

Context: 714 Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 8g
Identification and comments: **femur**

10.3.2.3 *Ardeola* or *Ardea* sp. (heron)

The Ardeidae family is found throughout South Asia, with a high representation of herons in Sri Lanka, including the giant heron (*Ardea goliath*), the grey heron (*Ardea cinerea*), the purple heron (*Ardea purpurea*), the little green heron (*Ardeola striatus*) and the pond heron or paddybird

(*Ardeola grayii*) (Ali and Ripley 1969: 49). Herons are generally solitary birds, and they are found in a range of habitats, including marshes, tidal creeks, mangrove swamps, tidal estuaries and rocky shorelines (ibid.).

Context: 251 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 10g
Identification and comments: **tibio-tarsus**

10.3.2.4 Unidentified bird finds

Context: 304 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **thoracic vertebra**

Context: 363 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **humerus - right**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **tarso-metatarsus**

Context: 716 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 3g
Identification and comments: **coracoid**

Context: 739 Stratigraphic Phase: LXIII
No. of pieces: 1 Weight: 7g
Identification and comments: **humerus - left**

Context: 791 Stratigraphic Phase: XLVII
No. of pieces: 1 Weight: 1g
Identification and comments: **humerus - left**

Context: 358 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 4g
Identification and comments: **humerus**

Context: 376 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 1g
Identification and comments: **tarso-metatarsal**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **carpo-metatarsus**

Context: 726 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 11g
Identification and comments: **femur**

Context: 767 Stratigraphic Phase: LX
No. of pieces: 1 Weight: 1g
Identification and comments: **humerus - right**

10.3.3 Reptiles

The considerable amount of reptile bone in the faunal assemblage, particularly of both hard and soft terrapin, strongly suggests a suitable environment for these and the other reptiles close to the site. A river, or the type of habitat resulting from increased tank irrigation, could be considered suitable. In conjunction with the increase in

Indian wild pig, with a preferred habitat of marshy ground, there is certainly faunal evidence that points towards a site environment including substantial areas of water. Table 10.8 gives the weight and numbers of the reptilian and fish remains recovered by period. While some are eaten, many are today hunted for their shells or skins (Daniel 1983: 7).

10.3.3.1 *Crocodylus palustris* or *Crocodylus porosus* (crocodile)

Four bones belonging to the crocodile species were recovered from trench ASW2, one from structural period B and three from period C, D & E. Of the three species of crocodile which occur in the Indian subcontinent, only two are found in Sri Lanka, the mugger or marsh crocodile (*Crocodylus palustris*), and the estuarine or salt-water

crocodile (*Crocodylus porosus*) (Daniel 1983: 8–16). The former, growing as long as 5.5 m, commonly inhabits rivers, lakes, tanks and waterholes; the latter, growing as long as 7 m, inhabits tidal estuaries, marine swamps and coastal brackish water (ibid.). It is probable that the remains represent the mugger or marsh crocodile since they

have been commonly found in the vicinity of Anuradhapura. As the *Mahavamsa* refers to man-eating crocodiles (Geiger 1960: 15), it seems unlikely that these

bones are the result of the hunting of crocodiles for their flesh.

Context: 24ne Stratigraphic Phase: C
No. of pieces: 1 Weight: 2gm
Identification & comments: mandible.

Context: 88ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5gm
Identification & comments: vertebra.

Context: 325ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification & comments: tooth

Context: 133ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5gm
Identification & comments: mandible - right.

10.3.3.2 *Lissemys punctata granosa* (peninsular mud or flap-shell turtle)

A total of 92 bones belonging to *Lissemys punctata* were recovered from trench ASW2. Although no bones were found in structural periods A, J and K, 1 bone was recovered from B, 11 from C, D & E, 14 from F, 57 from G, 3 from H and 6 from I. This species, growing as large as 0.27 m in carapace length, is widely distributed throughout perennial and non-perennial ponds, tanks and

river systems (Daniel 1983: 27–8; Deraniyagala 1953: 26–7). Its increased presence at the Citadel of Anuradhapura has been previously interpreted as a marker of the establishment and development of irrigation agriculture through the widening of its habitats by a human agency (Deraniyagala 1972: 158).

Context: 83sw Stratigraphic Phase: XCVI
No. of pieces: 1 Weight: 4gm
Identification and comments: carapace

Context: 88ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 7gm
Identification and comments: carapace

Context: 133ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 141ne Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 5gm
Identification and comments: carapace

Context: 151se Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3gm
Identification and comments: carapace

Context: 158se Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 175nw Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 3gm
Identification and comments: carapace
Context: 296ne Stratigraphic Phase: XCV
No. of Pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 200sw Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace
Context: 296se Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 304ne Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 306sw Stratigraphic Phase: XCIII
No. of pieces: 2 Weight: 5gm
Identification and comments: carapace

Context: 306sw Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3gm
Identification and comments: carapace

Context: 358se Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 358se Stratigraphic Phase: XCIII
No. of pieces: 2 Weight: 4gm
Identification and comments: carapace

Context: 359nw Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5gm
Identification and comments: carapace

Context: 364ne Stratigraphic Phase: XCII
No. of pieces: 3 Weight: 6gm
Identification and comments: carapace

Context: 365nw Stratigraphic Phase: XCII
No. of pieces: 4 Weight: 8gm
Identification and comments: carapace and plastron

Context: 365nw Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 6gm
Identification and comments: carapace

Context: 365nw Stratigraphic Phase: XCII
No. of pieces: 5 Weight: 15gm
Identification and comments: carapace and plastron

Context: 365nw Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 4gm
Identification and comments: limb bone with sharp cut marks

Context: 365nw Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 3gm
Identification and comments: carapace

Context: 368nw Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1gm
Identification and comments: carapace

Context: 374nw Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2gm
Identification and comments: carapace

Context: 374nw Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 5gm
Identification and comments: **plastron**

Context: 376nw Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 1gm
Identification and comments: **carapace**

Context: 386nw Stratigraphic Phase: XCI
No. of pieces: 2 Weight: 8gm
Identification and comments: **carapace**

Context: 386sw Stratigraphic Phase: XCI
No. of pieces: 3 Weight: 8gm
Identification and comments: **carapace**

Context: 400se Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6gm
Identification and comments: **carapace**

Context: 406sw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6gm
Identification and comments: **carapace**

Context: 409 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 13gm
Identification and comments: **carapace**

Context: 409nw Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 4gm
Identification and comments: **carapace**

Context: 414sw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6gm
Identification and comments: **carapace**

Context: 416se Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 8gm
Identification and comments: **carapace**

Context: 418se Stratigraphic Phase: XCI
No. of pieces: 2 Weight: 8gm
Identification and comments: **carapace**

Context: 437ne Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 3gm
Identification and comments: **carapace**

Context: 444ne Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 3gm
Identification and comments: **carapace**

Context: 468ne Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 4gm
Identification and comments: **carapace**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **carapace**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 2 Weight: 8gm
Identification and comments: **carapace**

Context: 487ne Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 1gm
Identification and comments: **carapace**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification and comments: **humerus**

Context: 601se Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 5gm
Identification & comments: **carapace**

Context: 376nw Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 5gm
Identification and comments: **carapace (sf 6105)**

Context: 386ne Stratigraphic Phase: XCI
No. of pieces: 6 Weight: 30gm
Identification and comments: **carapace**

Context: 386nw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4gm
Identification and comments: **limb bone**

Context: 399ne Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 2gm
Identification and comments: **carapace**

Context: 404ne Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4gm
Identification and comments: **carapace**

Context: 407nw Stratigraphic Phase: LXXXV
No. of pieces: 3 Weight: 10gm
Identification and comments: **carapace**

Context: 409 Stratigraphic Phase: LXXXVIII
No. of pieces: 11 Weight: 21gm
Identification and comments: **carapace**

Context: 413se Stratigraphic Phase: XCI
No. of pieces: 2 Weight: 5gm
Identification and comments: **carapace**

Context: 414sw Stratigraphic Phase: LCI
No. of pieces: 1 Weight: 3gm
Identification and comments: **limb**

Context: 417sw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 15gm
Identification and comments: **plastron and carapace**

Context: 425sw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 5gm
Identification and comments: **plastron**

Context: 442se Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 10gm
Identification and comments: **plastron**

Context: 449sw Stratigraphic Phase: LXXXVII
No. of pieces: 2 Weight: 8gm
Identification and comments: **carapace**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **carapace**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **carapace**

Context: 487ne Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 4gm
Identification and comments: **carapace**

Context: 487ne Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 8gm
Identification and comments: **plastron**

Context: 601 Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 5gm
Identification and comments: **carapace**

Context: 601se Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 2gm
Identification & comments: **carapace**

Faunal Remains

Context: **601se** Stratigraphic Phase: **LXXII**
No. of pieces: **10** Weight: **26gm**
Identification and comments: **carapace**

Contexts: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **plastron**

Context: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **2gm**
Identification & comments: **carapace**

Context: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **11gm**
Identification & comments: **plastron**

Context: **605sw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **2** Weight: **7gm**
Identification and comments: **carapace**

Context: **607se** Stratigraphic Phase: **LXXI**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **carapace**

Context: **635nw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **3** Weight: **8gm**
Identification and comments: **carapace and plastron**

Context: **635nw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **1** Weight: **7gm**
Identification & comments: **plastron**

Context: **663ne** Stratigraphic Phase: **LXVI**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **carapace**

Context: **669nw** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **carapace**

Context: **693nw** Stratigraphic Phase: **LXXXIV**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **carapace**

Context: **697ne** Stratigraphic Phase: **LXIV**
No. of pieces: **1** Weight: **6gm**
Identification and comments: **carapace**

Context: **715se** Stratigraphic Phase: **LXII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **plastron**

Context: **750se** Stratigraphic Phase: **LVII**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **plastron**

Context: **791nw** Stratigraphic Phase: **XLVI**
No. of pieces: **1** Weight: **11gm**
Identification and comments: **mandible - right**

Context: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **3** Weight: **9gm**
Identification and comments: **carapace**

Context: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **plastron**

Context: **602nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **plastron**

Context: **605sw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **2** Weight: **7gm**
Identification & comments: **carapace**

Context: **605sw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **2** Weight: **6gm**
Identification and comments: **carapace**

Context: **615ne** Stratigraphic Phase: **LXVIII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **carapace**

Context: **635nw** Stratigraphic Phase: **LXXXIII**
No. of pieces: **2** Weight: **8gm**
Identification and comments: **carapace**

Context: **643nw** Stratigraphic Phase: **LXXII**
No. of pieces: **1** Weight: **7gm**
Identification and comments: **plastron**

Context: **669nw** Stratigraphic Phase: **LXIX**
No. of pieces: **1** Weight: **4gm**
Identification & comments: **carapace**

Context: **670sw** Stratigraphic Phase: **LXIV**
No. of pieces: **2** Weight: **4gm**
Identification and comments: **carapace**

Context: **693nw** Stratigraphic Phase: **LXXXIV**
No. of pieces: **1** Weight: **12gm**
Identification and comments: **plastron**

Context: **714sw** Stratigraphic Phase: **LIV**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **carapace**

Context: **744nw** Stratigraphic Phase: **LXII**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **carapace**

Context: **791nw** Stratigraphic Phase: **XLVI**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **carapace**

Context: **837se** Stratigraphic Phase: **XXXV**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **carapace**

10.3.3.3 *Melanochelys trijuga thermalis* (Indian pond terrapin)

A total of 82 bones belonging to the Indian pond terrapin were recovered from ASW2: 2 from structural period B, 8 from period C, D & E, 13 from F, 55 from G, 1 from H and 3 from J. This species grows to a maximum length of 0.22 m in carapace length and is commonly found in slow-flowing or sedentary bodies of water (Daniel 1983: 23-4). As in the case of *Lissemys punctata*, it is tempting to see its

increasing representation within the faunal record as an indicator of the development of tank irrigation. As already recorded by Deraniyagala, its presence among the faunal remains at the site is something of a surprise as it emits a disagreeable odour if disturbed, and eating it was uncommon (Deraniyagala 1972: 155).

Context: **41sw** Stratigraphic Phase: **C**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **carapace**

Context: **59nw** Stratigraphic Phase: **XCVI**
No. of pieces: **1** Weight: **6gm**
Identification and comments: **plastron**

Context: **88ne** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **7gm**
Identification and comments: **carapace**

Context: **141ne** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **marginal bone**

Context: **196se** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **carapace**

Context: **209ne** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **carapace**

Context: **334ne** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **carapace**

Context: **358se** Stratigraphic Phase: **XCIII**
No. of pieces: **2** Weight: **4gm**
Identification and comments: **carapace**

Context: **364ne** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **marginal bone**

Context: **365nw** Stratigraphic Phase: **XCII**
No. of pieces: **2** Weight: **5gm**
Identification and comments: **carapace**

Context: **365nw** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **10gm**
Identification and comments: **plastron**

Context: **366se** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **6gm**
Identification and comments: **carapace**

Context: **376nw** Stratigraphic Phase: **LXXXVI**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **carapace**

Context: **378se** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **marginal bone**

Context: **386sw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **15gm**
Identification and comments: **plastron**

Context: **386sw** Stratigraphic Phase: **XCI**
No. of pieces: **2** Weight: **8gm**
Identification and comments: **carapace**

Context: **406sw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **8gm**
Identification and comments: **carapace**

Context: **409nw** Stratigraphic Phase: **LXXXVII**
No. of pieces: **1** Weight: **1gm**
Identification and comments: **carapace**

Context: **416nw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **20gm**
Identification and comments: **plastron**

Context: **417nw** Stratigraphic Phase: **XCI**
No. of pieces: **2** Weight: **10gm**
Identification and comments: **plastron**

Context: **424nw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **10gm**
Identification and comments: **plastron**

Context: **113ne** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **marginal bone**

Context: **175nw** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **3gm**
Identification and comments: **marginal bone**

Context: **200sw** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **carapace**

Context: **263nw** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **marginal bone**

Context: **356nw** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **plastron**

Context: **358se** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **carapace**

Context: **364ne** Stratigraphic Phase: **XCII**
No. of pieces: **1** Weight: **8gm**
Identification and comments: **carapace**

Context: **365nw** Stratigraphic Phase: **XCII**
No. of pieces: **2** Weight: **6gm**
Identification and comments: **plastron**

Context: **365nw** Stratigraphic Phase: **XCII**
No. of pieces: **2** Weight: **15gm**
Identification and comments: **plastron**

Context: **373ne** Stratigraphic Phase: **XCV**
No. of pieces: **1** Weight: **6gm**
Identification and comments: **carapace**

Context: **378se** Stratigraphic Phase: **XCIII**
No. of pieces: **1** Weight: **10gm**
Identification and comments: **plastron**

Context: **385sw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **15gm**
Identification and comments: **carapace**

Context: **386sw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **10gm**
Identification and comments: **carapace**

Context: **399se** Stratigraphic Phase: **XCI**
No. of pieces: **7** Weight: **20gm**
Identification and comments: **carapace & plastron**

Context: **406sw** Stratigraphic Phase: **XCI**
No. of pieces: **2** Weight: **10gm**
Identification and comments: **carapace**

Context: **409nw** Stratigraphic Phase: **LXXXVIII**
No. of pieces: **1** Weight: **2gm**
Identification and comments: **carapace**

Context: **417nw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **5gm**
Identification and comments: **plastron**

Context: **424nw** Stratigraphic Phase: **XCI**
No. of pieces: **1** Weight: **4gm**
Identification and comments: **carapace**

Context: **424nw** Stratigraphic Phase: **XCI**
No. of pieces: **3** Weight: **8gm**
Identification and comments: **carapace**

Faunal Remains

Context: 425sw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: XCI Weight: 5gm	Context: 426ne No. of pieces: 1 Identification and comments: marginal bone	Stratigraphic Phase: LXXXVIII Weight: 8gm
Context: 426ne No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXXVIII Weight: 30gm	Context: 445sw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXXVII Weight: 25gm
Context: 409nw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXXVII Weight: 1g	Context: 448sw No. of pieces: 3 Identification and comments: carapace	Stratigraphic Phase: LXXXVII Weight: 30gm
Context: 449sw No. of pieces: 3 Identification and comments: carapace & plastron	Stratigraphic Phase: LXXXVII Weight: 10gm	Context: 450nw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXXVII Weight: 10gm
Context: 457sw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXXVI Weight: 7gm	Context: 486se No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXXII Weight: 8gm
Context: 470sw No. of pieces: 2 Identification and comments: carapace & plastron	Stratigraphic Phase: LXXXI Weight: 10gm	Context: 470sw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXXI Weight: 8gm
Context: 470sw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXXI Weight: 20gm	Context: 487ne No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXXI Weight: 40gm
Context: 601se No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXII Weight: 3gm	Context: 601se No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXII Weight: 6gm
Context: 601se No. of pieces: 1 Identification & comments: carapace	Stratigraphic Phase: LXXII Weight: 5gm	Context: 601se No. of pieces: 1 Identification & comments: carapace	Stratigraphic Phase: LXXII Weight: 6gm
Context: 602nw No. of pieces: 1 Identification & comments: carapace	Stratigraphic Phase: LXXII Weight: 7gm	Context: 602nw No. of pieces: 1 Identification & comments: plastron	Stratigraphic Phase: LXXII Weight: 3gm
Context: 602nw No. of pieces: 3 Identification & comments: carapace & plastron	Stratigraphic Phase: LXXII Weight: 11gm	Context: 602nw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXII Weight: 7gm
Context: 602nw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXII Weight: 3gm	Context: 602nw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXII Weight: 8gm
Context: 602nw No. of pieces: 3 Identification and comments: plastron & carapace	Stratigraphic Phase: LXXII Weight: 11gm	Context: 605sw No. of pieces: 2 Identification and comments: plastron & carapace	Stratigraphic Phase: LXXXIII Weight: 14gm
Context: 607se No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXI Weight: 3gm	Context: 615ne No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXVIII Weight: 5gm
Context: 615ne No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXVIII Weight: 5gm	Context: 615ne No. of pieces: 2 Identification and comments: carapace	Stratigraphic Phase: LXVIII Weight: 8gm
Context: 616se No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXX Weight: 3gm	Context: 632nw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXXXIII Weight: 4gm
Context: 632nw No. of pieces: 4 Identification and comments: carapace	Stratigraphic Phase: LXXXIII Weight: 20gm	Context: 634nw No. of pieces: 3 Identification and comments: plastron & carapace	Stratigraphic Phase: LXIX Weight: 30gm
Context: 635nw No. of pieces: 1 Identification and comments: plastron	Stratigraphic Phase: LXXIII Weight: 9gm	Context: 669nw No. of pieces: 1 Identification and comments: carapace	Stratigraphic Phase: LXIX Weight: 7gm
Context: 684nw No. of pieces: 1 Identification and comments: limb	Stratigraphic Phase: LXVII Weight: 1gm	Context: 685nw No. of pieces: 3 Identification and comments: carapace	Stratigraphic Phase: LXIX Weight: 15gm

Context: 693nw Stratigraphic Phase: LXXXIV
No. of pieces: 1 Weight: 8gm
Identification and comments: **plastron**

Context: 729nw Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 3gm
Identification and comments: **plastron**

Context: 791nw Stratigraphic Phase: XLVII
No. of pieces: 1 Weight: 7gm
Identification and comments: **pelvis**

Context: 698nw Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 10gm
Identification and comments: **plastron**

Context: 788nw Stratigraphic Phase: LIII
No. of pieces: 1 Weight: 29gm
Identification and comments: **plastron and carapace**

10.3.3.4 Snake

A total of five snake bones, all vertebrae, were recovered from trench ASW2: one from structural period A, one from B and one from period C, D & E. Sri Lanka has one of the highest mortality rates from snake bites in the world, and Anuradhapura itself contains many varieties of snakes from the largest (pythons) to the smallest (common worm snake)

(Daniel 1983: 61–128). It may be hypothesized that the very low representation of snake at ASW2 suggests a chance incorporation within archaeological deposits rather than an indicator of diet, although snakes are eaten within South Asia (ibid.: 73).

Context: 9se Stratigraphic Phase: CVI
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra**

Context: 25nw Stratigraphic Phase: XCVII
No. of pieces: 1 Weight: 2gm
Identification and comments: **vertebra**

Context: 87sw Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 5gm
Identification and comments: **vertebrae**

10.3.3.5 *Varanus salvator* and *Varanus bengalensis* (water and common monitor lizard)

A total of 22 monitor lizard bones, all vertebrae, were recovered from ASW2, 3 from structural period C, D & E, 2 from F, 13 from G, 3 from H and 1 from I. It is interesting that two – one from period C, D & E and one from G – were marked with sharp cut marks, presumably from butchering. Two types of monitor lizard are found in Sri Lanka, the water monitor (*Varanus salvator*) and the

common Indian monitor (*Varanus bengalensis*) (Daniel 1983: 58–60). The former has a maximum length of 2.5 m and is found in, or close to, both fresh and salt water: the latter, with a maximum length of 1.75 m, lives in all biotopes (ibid.). The common Indian monitor is considered a delicacy in many parts of Sri Lanka, while the water monitor is widely considered taboo there.

Context: 73sw Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 2gm
Identification and comments: **vertebra**

Context: 88ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4gm
Identification and comments: **vertebra**

Context: 141ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4gm
Identification and comments: **vertebra**

Context: 304ne Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra**

Context: 316ne Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2gm
Identification and comments: **vertebra with sharp cut marks**

Context: 386nw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 5gm
Identification and comments: **vertebra**

Context: 386nw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4gm
Identification and comments: **vertebra**

Context: 409nw Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 5gm
Identification and comments: **vertebra**

Context: 409nw Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 5gm
Identification and comments: **vertebra**

Context: 424nw Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6gm
Identification and comments: **vertebra**

Context: 426ne Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra with sharp cut marks**

Context: 437se Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 10gm
Identification and comments: **vertebra**

Context: 442se Stratigraphic Phase: LXXXVII
No. of pieces: 1 Weight: 2gm
Identification and comments: **vertebra**

Context: 467nw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra**

Context: 470sw Stratigraphic Phase: LXXXI
No. of pieces: 1 Weight: 3gm
Identification and comments: **vertebra**

Context: 493se Stratigraphic Phase: LXXV
No. of pieces: 1 Weight: 6gm
Identification and comments: vertebra

Context: 670sw Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 4gm
Identification and comments: vertebra

Context: 698nw Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 4gm
Identification and comments: vertebra

Context: 645ne Stratigraphic Phase: LXIX
No. of pieces: 1 Weight: 2gm
Identification and comments: vertebra

Context: 697ne Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 2gm
Identification and comments: vertebra

Context: 714sw Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 1gm
Identification and comments: vertebra

10.3.3.6 Marine turtle

A total of 18 fragments of marine turtle, all carapace, were identified at trench ASW2, 3 from structural period I and the remaining 15 from the fill of a pit cut into period J. Four species of marine turtles are known in the Indian Ocean. These are the Green Turtle (*Chelonia mydas* [Linnaeus]), the Olive Ridley Turtle (*Lepidochelys olivacea* [Eschscholte]), the Hawksbill Turtle (*Eretmochelys*

imbricata [Linnaeus]) and the Leathery Turtle (*Dermochelys coriacea* [Linnaeus]) (Daniel 1983: 17–22). Reaching a maximum carapace length of 1.5 m, males lead a completely aquatic life and females return to shore solely to lay eggs (ibid.: 17). Traditionally caught for their flesh, the scutes of the Hawksbill turtle are commonly used in the manufacture of ornaments (ibid.).

Context: 962nw Stratigraphic Phase: XXX
No. of pieces: 1 Weight: 20gm
Identification and comments: carapace

Context: 1175se Stratigraphic Phase: XVIII
No. of pieces: 2 Weight: 45gm
Identification and comments: carapace

Context: 1214sw Stratigraphic Phase: XXIX
No. of pieces: 4 Weight: 35gm
Identification and comments: carapace

Context: 1214sw Stratigraphic Phase: XXIX
No. of pieces: 11 Weight: 270gm
Identification and comments: carapace

10.3.4 Fish

The majority of fish bones recovered from ASW2 have not been identified as to genus or species and therefore cannot be designated as freshwater or marine types. If the species present and their habitats are known, it may be possible to build up models of capture strategies and technologies, as Belcher has done for the site of Harappa in Pakistan (Belcher 1994: 71–3). In this case, ethnographic work among modern fisherfolk in the region has proved

particularly useful in identifying artefacts indicative of particular fishing techniques (ibid.: 77). It may be that, if further identification to species level of the ASW2 fish material was possible, along with ethnographic investigation and analysis of any relevant artefacts, predictive models for fishing strategies could be developed here. The total numbers of fish bones recovered from ASW2 are given in Table 10.8 with the reptilian material.

10.3.4.1 Shark and ray (*Euselachii*)

A total of three vertebrae belonging to members of the *Euselachian* family were recovered from ASW2, however it is difficult to identify whether they are Batoid or Shark, let alone which of the 815 species (Nelson 1994: 43–65). Sharks were often encountered during the pearl diving season, and Tennent recorded that a ceremony involving a shark charmer was necessary with every season (Tennent

1859). Evidently the transportation of fresh meat inland to Anuradhapura seems most unlikely and therefore we may suggest that it was dried at the coast prior to transport. Such dried shark meat is commonly encountered on the Kenyan coast. Certainly shark meat is eaten today on the west and east coasts of India (McCormick *et al.* 1970: 175).

Context: 194 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: vertebra

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: vertebra

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: vertebra

10.3.4.2 *Mystus* sp. (catfish)

Catfish form one of the categories of identified fish bone from trench ASW2. In most cases it has been impossible to identify a species, but a small number have been attributed to the genus *Mystus* (Scoopoli). This is commonly found in ponds and small streams (Deraniyagala 1952: 53). While

Mystus range in length between 0.24 m and 0.10 m, the largest catfish, *Wallago attu* (Bloch et Schneider), reaches a maximum length of 1.5 m and is also known as the 'freshwater shark' (ibid.).

Context: 12 Stratigraphic Phase: CVIII
No. of pieces: 1 Weight: 1g
Identification and comments: pectoral spine

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: pectoral spine

10.3.4.3 *Ophicephaloidea (snakeheads)*

Of the 18 species of *Ophicephaloidea* found in South Asia (Nelson 1994: 435), four are present in Sri Lanka: *Ophicephalus striatus*, *Ophicephalus ara*, *Ophicephalus punctatus*, *Ophicephalus gachua kelaarti* (Deraniyagala 1952: 120–30). *Ophicephalus striatus*, the largest, is known to grow to a maximum length of 0.68 m and is described as

Context: 41 Stratigraphic Phase: C
No. of pieces: 1 Weight: 5g
Identification and comments: **mandible**

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **mandible**

one of the most important freshwater food fish in Sri Lanka (ibid.). They are found in rivers, streams and tanks. In the height of the dry season, when crops fail, they are an important food resource and moreover are more accessible as tanks dry up. They are known, however, to migrate between ponds (ibid.).

Context: 56 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **mandible - right**

Context: 414 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6g
Identification and comments: **mandible - right**

10.3.4.4 *Unidentified fish*

Context: 42 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 4g
Identification and comments: **vertebra**

Context: 87 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 5g
Identification and comments: **skull**

Context: 113 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 196 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 15g
Identification and comments: **bone fragments**

Context: 252 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 6g
Identification and comments: **skull**

Context: 254 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **skull**

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **skull**

Context: 261 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **skull**

Context: 298 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **vertebra**

Context: 306 Stratigraphic Phase: XCIII
No. of pieces: 6 Weight: 5g
Identification and comments: **spines, jaw**

Context: 320 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **mandible**

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 345 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 358 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: **maxilla**

Context: 73 Stratigraphic Phase: XCIII
No. of pieces: 4 Weight: 7g
Identification and comments: **vertebrae, maxilla**

Context: 88 Stratigraphic Phase: XCV
No. of pieces: 5 Weight: 15g
Identification and comments: **vertebra, spines, skull**

Context: 158 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 4g
Identification and comments: **vertebra, skull**

Context: 251 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **vertebra**

Context: 253 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **skull**

Context: 255 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 6g
Identification and comments: **skull**

Context: 259 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **mandible - left**

Context: 272 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 304 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 6g
Identification and comments: **maxilla, spine**

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 320 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **vertebra**

Context: 332 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 358 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 365 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: **vertebra**

Faunal Remains

Context: 365 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 369 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: **skull**

Context: 375 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 386 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g
Identification and comments: **vertebra**

Context: 404 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 6g
Identification and comments: **maxilla - left**

Context: 417 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 4g
Identification and comments: **vertebra**

Context: 431 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g
Identification and comments: **vertebra**

Context: 449 Stratigraphic Phase: LXXXVII
No. of pieces: 2 Weight: 6g
Identification and comments: **dorsal fin spine, skull**

Context: 492 Stratigraphic Phase: LXXV
No. of pieces: 1 Weight: 4g
Identification and comments: **vertebra**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 3g
Identification and comments: **vertebrae**

Context: 601se Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 3g
Identification and comments: **skull**

Context: 659ae Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 787se Stratigraphic Phase: XLIII
No. of pieces: 1 Weight: 12g
Identification and comments: **axis vertebra**

Context: 366 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 374 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: **vertebra**

Context: 379 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **vertebra**

Context: 401 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **vertebra**

Context: 416 Stratigraphic Phase: XCI
No. of pieces: 2 Weight: 7g
Identification and comments: **vertebra, maxilla - left**

Context: 426 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 4g
Identification and comments: **vertebra**

Context: 448 Stratigraphic Phase: LXXXVI
No. of pieces: 1 Weight: 4g
Identification and comments: **mandible - right**

Context: 457 Stratigraphic Phase: LXXXVI
No. of pieces: 2 Weight: 10g
Identification and comments: **vertebra, skull**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 4g
Identification and comments: **skull**

Context: 600 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **fin spine**

Context: 602nw Stratigraphic Phase: LXXII
No. of pieces: 1 Weight: 2g
Identification and comments: **jaw**

Context: 714sw Stratigraphic Phase: LIV
No. of pieces: 1 Weight: 6g
Identification and comments: **skull**

10.3.5 Shells

The shells recovered and identified include both marine and freshwater molluscs, which again suggests that either trade with coastal sites or travel to the coast was taking place, as well as the exploitation of local resources. The shells may represent food waste or they may have been artefacts in their own right. The genera and species identified cover both decorative and more utilitarian shells, which may be the result of selection for different purposes. As there is no record for the shells of visible signs of work done to them or marks suggesting they have been prepared for food, this

can only be based on the fact that certain shells, particularly among the marine group, are today considered sacred or are collected purely for their visual or symbolic appeal (Kenoyer 1991: 217; Wye 1991: 184). A number of the shell remains do consist of cores, something which is known from other sites and ethnographic studies to represent waste from shells used for jewellery and decorative purposes (Kenoyer 1991: 216–17). Table 10.9 lists the total numbers of shells recovered by period.

10.3.5.1 *Anadara* sp. (marine bivalves)

Anadara is a genus of the Arcidae family of shells, otherwise known as 'ark clams'. This is a subtidal, shallow-water genus and specimens are usually found attached to

rocks, in cracks in cliff faces or on shallow reefs (Abbott and Dance 1991: 291–2; Wye 1991: 242).

Context: 409 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 10g

Context: 420 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 3g

Identification and comments: **shell**

Context: 493 Stratigraphic Phase: LXXV
No. of pieces: 1 Weight: 8g
Identification and comments: **shell**

10.3.5.2 *Bivalvia sp. (marine bivalves)*

There are over 10,000 living species known to belong to the Bivalvia class of molluscs (Abbott and Dance 1991: 2).

Context: 151 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: **shell**

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **shell**

Context: 663 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 1206 Stratigraphic Phase: XXXVI
No. of pieces: 1 Weight: 3g
Identification and comments: **shell**

10.3.5.3 *Cryptozona sp. (land snail)*

Context: 65 Stratigraphic Phase: CX
No. of pieces: 12 Weight: 8g
Identification and comments: **shell**

Context: 134 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 10g
Identification and comments: **shell**

Context: 255 Stratigraphic Phase: XCV
No. of pieces: 4 Weight: 5g
Identification and comments: **shell**

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 2g
Identification and comments: **shell**

Context: 306 Stratigraphic Phase: XCIII
No. of pieces: 2 Weight: 2g
Identification and comments: **shell**

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 4 Weight: 4g
Identification and comments: **shell**

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 334 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 3g
Identification and comments: **shell**

Context: 334 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 364 Stratigraphic Phase: XCII
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Identification and comments: **shell**

Context: 182 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **shell**

Context: 271 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: **shell**

Context: 334 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 1125 Stratigraphic Phase: XXIII
No. of pieces: 1 Weight: 3g
Identification and comments: **shell**

Context: 105 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 158 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 2g
Identification and comments: **shell**

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 262 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 3g
Identification and comments: **shell**

Context: 320 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 2g
Identification and comments: **shell**

Context: 334 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 3g
Identification and comments: **shell**

Context: 355 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 373 Stratigraphic Phase: XCV
No. of pieces: 2 Weight: 4g
Identification and comments: **shell**

Context: 375 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 1g
Identification and comments: shell

10.3.5.4 *Cypraea* sp. (cowrie)

There are over 200 named species in the Cypraeidae family, of which *Cypraea* is the main genus. This marine gastropod is omnivorous and is found in tropical and warm seas (Abbott and Dance 1991: 83; Wye 1991: 82). Cowries

Context: 254 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: shell

Context: 313 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: shell

Context: 325 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 3g
Identification and comments: shell

10.3.5.5 *Lamellaria* sp. (marine gastropod)

These marine gastropods are found frequently under stones in the lower shore area. The molluscs themselves are slug-

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 3 Weight: 3g
Identification and comments: shell

Context: 381 Stratigraphic Phase: LXXXIX
No. of pieces: 1 Weight: 2g
Identification and comments: shell

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 10g
Identification and comments: shell

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 9g
Identification and comments: shell

Context: 1174 Stratigraphic Phase: XX
No. of pieces: 2 Weight: 4g
Identification and comments: shell

10.3.5.6 *Oliva* sp. (marine gastropod)

Oliva are considered the 'true' olive genus out of the six main genera of the Olividae family (Wye 1991: 187), and there are over 50 species in the *Oliva* genus alone (Abbott

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 8g
Identification and comments: shell

Context: 1172 Stratigraphic Phase: XXII
No. of pieces: 1 Weight: 4g
Identification and comments: shell

10.3.5.7 *Pila* sp. (freshwater snail)

This freshwater gastropod is found today in tropical, inland, stagnant water and is considered edible (Deraniyagala 1992: 302; Morton 1958: 181). As the habitat of this genus is stagnant water, this makes it quite suited to areas such as irrigation tanks that are known through the archaeology at

Context: 269 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: shell

Context: 409 Stratigraphic Phase: LXXXVIII
No. of pieces: 1 Weight: 2g
Identification and comments: shell

are known for the smooth, glossy surface of their shells and they usually have a toothed aperture (Abbott and Dance 1991: 83).

Context: 305 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: shell

Context: 324 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 5g
Identification and comments: shell

Context: 369 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 3g
Identification and comments: shell

like but are not actually sea slugs (Beedham 1972: 52). They are related to the cowrie (ibid.).

Context: 256 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 2g
Identification and comments: shell

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 5g
Identification and comments: shell

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 6g
Identification and comments: shell

Context: 1125 Stratigraphic Phase: XXIII
No. of pieces: 1 Weight: 2g
Identification and comments: shell

and Dance 1991: 190). These small gastropods tend to burrow under sand during the day, coming out to feed at night (Wye 1991: 187).

Context: 1125 Stratigraphic Phase: XXIII
No. of pieces: 1 Weight: 4g
Identification and comments: shell

Context: 1172 Stratigraphic Phase: XXII
No. of pieces: 1 Weight: 4g
Identification and comments: shell

ASW2. Shells identified as *Pila globosa*, the apple snail, have been recovered from Mesolithic shell middens on the island (Deraniyagala 1992: 302). *Pila* has also been reported as a food source in the Jaffna peninsula (Ragupathy 1987: 164).

Context: 316 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 1g
Identification and comments: operculum

Context: 676 Stratigraphic Phase: LXVII
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 961 Stratigraphic Phase: XXXI
No. of pieces: 1 Weight: 2g
Identification and comments: **shell**

Context: 1125 Stratigraphic Phase: XXIII
No. of pieces: 1 Weight: 7g
Identification and comments: **shell**

10.3.5.8 *Strombus* sp. (marine gastropod, conch)

Species of the *Strombus* genus found in the Sri Lankan region include *S. labiatus* and *S. mutabis* (Abbott and Dance 1991: 77). Both of these species are found in areas of shallow water (Wye 1991: 76). All members of the

Context: 374 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 2g
Identification and comments: **shell**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 13g
Identification and comments: **shell**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 11g
Identification and comments: **shell**

Context: 1101 Stratigraphic Phase: XXVII
No. of pieces: 1 Weight: 17g
Identification and comments: **shell**

Context: 1208 Stratigraphic Phase: XXI
No. of pieces: 1 Weight: 15g
Identification and comments: **shell**

10.3.5.9 *Thiara* sp. (freshwater snail)

Thiara is a freshwater gastropod and, like the *Pila* genus, can be found in stagnant or running water (Purchon 1977: 355). This would be in keeping with recovery from irrigation tanks or associated areas of water at ASW2.

Context: 307 Stratigraphic Phase: XCIII
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

10.3.5.10 *Turbinella* sp. (marine gastropod)

Turbinella is a genus in the Vasidae or vase shell family and is also known as 'chank' shell, a name derived from the Hindu word *cankh*, meaning shell (Wye 1991: 181). Several species of chank shells are found in South Asia, including *T. pyrum*, which is endemic to southeastern India

Context: 26 Stratigraphic Phase: CIV
No. of pieces: 1 Weight: 2g
Identification and comments: **shell**

Context: 272 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 4g
Identification and comments: **shell**

Context: 320 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **shell**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 1 Weight: 2g
Identification and comments: **shell**

Context: 698 Stratigraphic Phase: LXIV
No. of pieces: 1 Weight: 1g
Identification and comments: **operculum**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 385 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 1g
Identification and comments: **shell**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 14g
Identification and comments: **shell**

Context: 977 Stratigraphic Phase: XXVIII
No. of pieces: 1 Weight: 15g
Identification and comments: **shell**

Context: 1124 Stratigraphic Phase: XXV
No. of pieces: 1 Weight: 25g
Identification and comments: **shell**

There are over 20 genera of the Thiariidae family, and they occupy a wide range of habitats, including brackish water. Some species can be found in tidal estuaries (Mason 1996: 245).

Context: 363 Stratigraphic Phase: XCIII
No. of pieces: 2 Weight: 2g
Identification and comments: **shell**

and Sri Lanka. This particular species, especially the sinistral form, is sacred to Hindus and is known to be used for ceremonial and religious purposes, as well as for making jewellery (Abbott and Dance 1991: 210; Wye 1991: 184).

Context: 158 Stratigraphic Phase: XCV
No. of pieces: 1 Weight: 8g
Identification and comments: **shell**

Context: 292 Stratigraphic Phase: XCV
No. of pieces: 4 Weight: 4g
Identification and comments: **shell**

Context: 404 Stratigraphic Phase: XCI
No. of pieces: 1 Weight: 5g
Identification and comments: **shell**

Context: 837 Stratigraphic Phase: XXXV
No. of pieces: 2 Weight: 29g
Identification and comments: **shell**

Context: 837 Stratigraphic Phase: XXXV
 No. of pieces: 3 Weight: 48g
 Identification and comments: shell

10.3.5.11 Worked shell (unidentified)

Context: 502 Stratigraphic Phase: LXXVI
 No. of pieces: 1 Weight: 0.4g
 Identification and comments: worked shell

10.4 Conclusions

The faunal bone assemblage from ASW2 is large and covers a wide range of wild and domesticated species. This indicates that the occupants of the site were able to exploit a wide range of habitats and possibly even take advantage of alterations in habitats to gain a range of meat sources. The presence of sea-animal bones and shells suggests that trade or other links with the coast were well established at Anuradhapura, in keeping with its status as a royal capital and rapidly expanding city. The early increase in overall bone quantities also follows the trend of a site where the population shows rapid growth. The later contraction in overall bone numbers can be attributed to a number of possible reasons, perhaps even the influence of the dominant vegetarian Buddhists, but this would require further work in such areas as cut marks, butchering patterns and herd structure to obtain more information. The minor animal species recovered and identified from ASW2 are important, not only because of their diversity but also because they give information about activities at and around the site. While the four major species present are likely to have provided the bulk of the animal food being consumed at ASW2 in varying proportions over time, the bones or shells from the minor species are as likely to be representative of other activities as they are a food source. These other activities may have included trade or other forms of contact with areas outside the ecozone in which ASW2 is situated. There are also the remains of crop pests and scavengers, which may be considered an integral part of settlement and agriculture – with certain species perhaps particularly attracted by the irrigation aspect, providing a reliable water source and habitat. Other species, such as the three types of deer, may have been hunted, but their tendency to solitary, nocturnal behaviour would make them far less suitable than the herd, diurnal behaviour of the far more numerous *Axis axis ceylonensis*. The presence of a range of reptiles and species whose habitat is water-based, such as the two terrapin species, indicates that the environment surrounding ASW2 was suitable for these animals. This corresponds with the increase in irrigation and water control, providing water or marshy ground over a sufficient area in the dry zone to support water-demanding species. Alternatively, these animals may have been acquired through trade or brought onto the site from other regions. The presence of *Dugong dugon*, in addition to the mangrove charcoal identified (see section 12.3.2 below), suggests contact with the coastal region, either through trade or a more direct link. The sea shells identified from a number of contexts also confirm this.

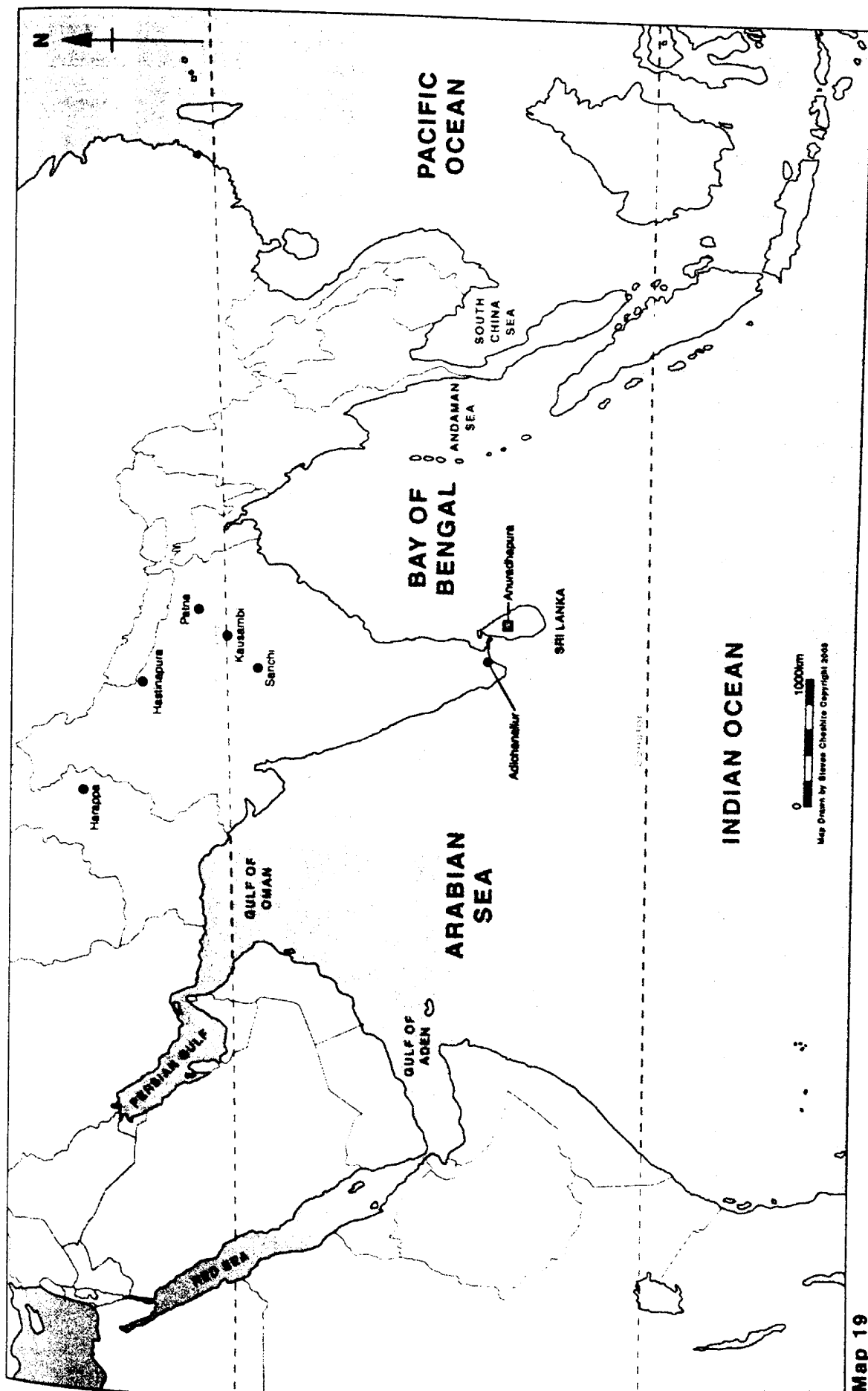
In order to gauge the representative nature of the faunal assemblage from ASW2, it is useful to compare it with the assemblage from the Gedige site, also on the Citadel. The excavations cover a similar sequence to those at ASW2 and

the species *Bos*, *Axis*, *Sus* and terrapin are also represented, but shellfish is either absent or not included in the faunal report. Generally, the same overall trends are repeated at the Gedige, with an increase in total bone numbers from the earliest period sampled, reaching a peak at the equivalent to period I. The numbers then decline in the period equivalent to G and later, but unlike ASW2 the numbers fall well below those of the earliest period examined (P.E.P. Deraniyagala 1972). Deraniyagala likewise considers that the terrapins are at Gedige as a food source, as they are not taboo animals. He also claims that cattle were being eaten there during the Hindu period of ascendancy as well as during later phases of occupation and suggests (1972: 157) that '... the "tabu" on beef was imposed in Ceylon during the middle or late historic period when there was a marked increase of Hindu influence on Sinhalese culture'. This would mean that assessing *Bos* as an indicator of social change with regard to taboo animals and religious changes at ASW2 during the period under examination might not be reliable.

These comments from Deraniyagala highlight the fact that the extent to which faunal assemblages can be used to indicate social change or differentiation is an extremely complex matter. The very presence of the caste system and the taboo status of animals negate simplistic economic models of subsistence. The importance and the problems of recognizing and interpreting the spiritual or symbolic dimensions of human actions within an archaeological context have been addressed by a number of post-processual archaeologists (Hodder 1986; Moore 1982) and can be considered primarily in terms of caste issues and religious change in relation to food consumption. The 'sacred cow' controversy is a prime example of the problems involved in trying to explain economically the symbolism and spiritualism in human behaviour. In his paper on the origins of the sacred cow concept, Harris states: '... I believe the irrational non-economic and exotic aspects of the Indian cattle concept are greatly overemphasised at the expense of the rational, economic and mundane interpretations' (1966: 51). Harris argued that the sacred cow concept did not evolve from religious ideas but could be explained from a technological-environmental perspective. Thirty years later, a number of other researchers (e.g. Batra 1982; Freed and Freed 1981; Simoons 1979) have exposed methodological and interpretative flaws in Harris's work. By trying to impose a purely rational and economic justification of the sacred cow concept, Harris diminished the influence of religion and spirituality, and the central role these play in South Asia (Freed and Freed 1981; Lodrick 1979). The issue of taboo animals is also important as it places great emphasis on purity and penance with regard to the eating of flesh and

animal products. The earliest historical record relating to taboo animals is a set of laws written down during the Vedic period and known as the *Manudharmasastra* or *Laws of Manu* – Manu being the father of mankind, according to Hindu teaching (Muller 1967). These laws set out required behaviour in relation to animals and animal products, including flesh suitable for consumption and circumstances under which certain meat can be eaten, and purification and atonement for eating forbidden material. The major categories of taboo animals are: carnivorous birds, or birds living in the village; sparrow, woodpecker, parrot or starling; webbed-feet birds; birds or animals that eat fish; village pig; unknown animals. There are also dictates regarding cattle products and handling of cattle by Brahmins and others (ibid.). The representation of taboo animals in the assemblage from ASW2 might be expected to alter with the change from Hinduism to Buddhism, as attitudes towards animals altered. It is also important to

consider that patterns of rubbish disposal themselves might change as ideology changes within a group (Hodder 1986: 78). It may be that the material recovered from ASW2 represents only a small or specific part of the total faunal waste, and the social controls determining bone disposal may be the result of religious or social beliefs. This could mean that changes in the faunal assemblage may be as much the result of changes in disposal patterns as attitudes to meat procurement and consumption. The limits of the archaeological record are also emphasized by the wealth of material which is recorded ethnographically; for example, whilst the skeletal remains of the *Ophicephalus marulius*, or giant snakehead, may be indistinguishable from those of the *Ophicephalus striatus*, or striped snakehead, the flesh of the former is not commonly eaten (Deraniyagala 1952: 128), whereas the flesh of the latter is very popular, whether fresh or dried (ibid: 123)!



Map 19

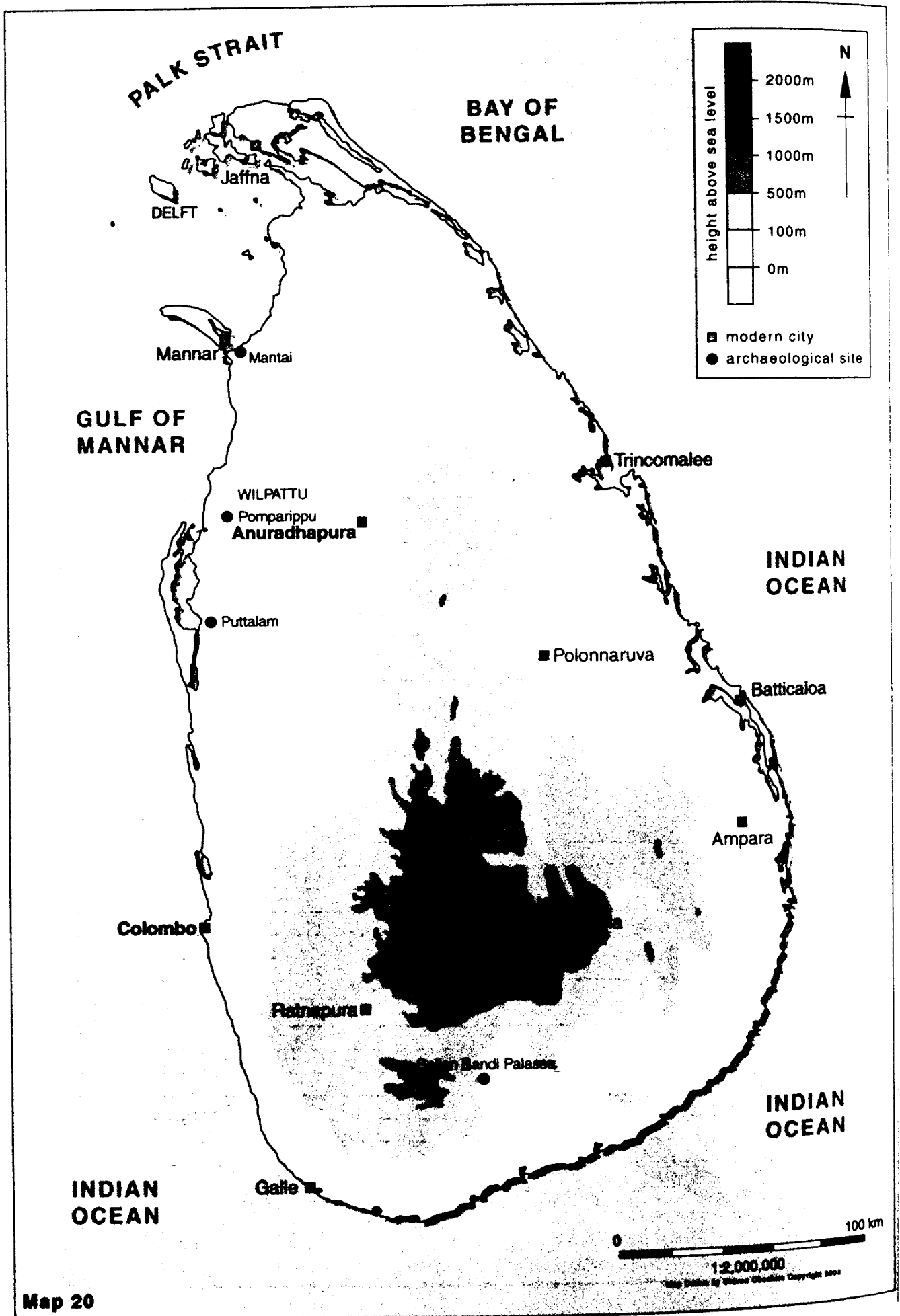


Table 10.1 Animal species represented

Mammals		
<i>Axis axis ceylonesis</i>		Ceylon spotted deer
<i>Bandicota sp.</i>		Bandicoot rat
<i>Bos indicus</i> or <i>Bos taurus</i>		Cattle
<i>Bubalus bubalis bubalis</i>		Indian water buffalo
<i>Canis aureus lanka</i> or <i>Canis familiaris</i>		Ceylon jackal or domestic dog
<i>Capra hircus</i>		Goat
<i>Cervus unicolor unicolor</i>		Sambhur
<i>Dugong dugon</i>		Common dugong or sea cow
<i>Elephas maximus maximus</i>		Indian elephant
<i>Equus caballus</i>		horse
<i>Felis sp.</i>		Cat
<i>Herpestes sp.</i>		Mongoose
<i>Hystrix indica</i>		Indian porcupine
<i>Lepus nigricollis</i>		Ceylon black naped hare
<i>Microchiroptera sp.</i>		Insectivorous or carnivorous bat
<i>Muntiacus muntjak malabaricus</i>		South Indian muntjak or barking deer
<i>Pteropus giganteus giganteus</i>		Indian flying fox
<i>Sus scrofa cristatus</i>		Indian wild pig
<i>Tragulus meminna</i>		Indian mouse deer or chevotain
Bird		
<i>Gallus sp.</i>		Fowl
<i>Pavo cristatus</i>		Indian peafowl
<i>Ardeola</i> or <i>Ardea sp.</i>		Heron sp.
Reptiles		
<i>Crocodylus sp.</i>		Crocodile
<i>Lissemys punctata</i>		Soft terrapin
<i>Melanocheilus trijuga thermalis</i>		Hard terrapin
<i>Serpentis sp.</i>		Snake
<i>Varanus sp.</i>		Water or land monitor
Fish		
<i>Euselachii</i>		Shark or ray
<i>Mystus sp.</i>		Catfish
<i>Ophicephalus sp.</i>		Snakehead
Shell		
<i>Anadara sp.</i>		Marine bivalve
<i>Bivalva sp.</i>		Marine bivalve
<i>Cryptonozona sp.</i>		Land mollusc
<i>Cypraea sp.</i>		Marine gastropod, Cowrie
<i>Lamellidens sp.</i>		Freshwater bivalve
<i>Oliva</i>		Marine gastropod
<i>Parreysia corrugata</i>		Freshwater corrugated clam
<i>Pila sp.</i>		Freshwater mollusc
<i>Strombus</i>		Marine gastropod, Conch
<i>Turbinella sp.</i>		Marine gastropod

Table 10.2 Faunal remains

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Major species											
Axis	number	4	116	49	2	235	80	353	40	3	882
	weight (g)	40	68.24	47.57	20	40.87	35.09	24.66	18.52	30	324.95
Bos	number	3	81	28	1	140	86	380	113	3	836
	weight (g)	30	47.65	27.18	10	24.35	37.72	33.52	52.31	30	292.73
Parusysia	number				5	36	18	346	53	2	480
	weight (g)				50	6.26	7.89	24.16	24.54	20	132.85
Sus	number	3	56	26	2	164	44	253	10	2	560
	weight (g)	30	32.94	25.25	20	28.52	19.3	17.67	4.63	20	198.31
All others											
	number	4	28	95	61	220	109	249	38	3	807
	weight (g)	6	1107.17	409	236	6254	3001	29233.99	6108	48	46403.16
Total	number	14	281	198	71	795	337	1581	254	13	3544
	weight (g)	106	1256	509	336	6354	3101	29334	6208	148	47352

Table 10.3 Major mammals, age estimation based on tooth wear

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Species	Young adult (M3 erupting, M1 and 2 little wear)										
Axis	number		1	3	1	4	5	10	1	1	26
Bos	number		1	3		3	1	5			12
Sus	number		2			3		3			8
Species	Adult (M3 fully erupted)										
Axis	number		2	3		5	5	13	1	1	30
Bos	number			5		3	1	5		1	16
Sus	number		1			3		3			7
Species	Ageing adult (M1, 2 and 3 showing signs of wear)										
Axis	number		1	2		8	4	16		1	32
Bos	number		1	5		3	1	3			13
Sus	number		1			1		3			5
Species	Elderly adult (M1, 2 and 3 showing considerable wear)										
Axis	number		2	2		3	1	8			16
Bos	number					1		2			3
Sus	number					1		2			3
Total	number		12	23	1	38	18	73	2	4	170

Table 10.4 Minor Mammals

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Bandicota	number weight (g)			1 2							1 2
Bubalus	number weight (g)		1 41	3 11		9 340	8 309	12 403	2 89	1 52	36 1345
Canis	number weight (g)		4 28	17 132	1 6	3 24	1 7	12 95	2 16		40 308
Capra	number weight (g)			2 22		3 68	1 7	6 101			12 198
Cervus	number weight (g)		1 15	5 78		3 37	1 16	8 122	1 14	1 23	20 305
Dugong	number weight (g)	1 45									1 45
Elephas	number weight (g)							1 81			1 81
Equus	number weight (g)					1 34					2 79
Felis	number weight (g)		1 3	6 19		3 12	1 45	3 7			14 43
Herpestes	number weight (g)					1 3	1 2				1 3
Hystrix	number weight (g)								1 4		1 4
Lepus	number weight (g)	1 4	4 15	25 58	6 34	15 75	7 49	21 62	4 25	1 3	84 325

Category	Period	A	B	C,D&E	F	G	H	I	J	K	Total
Microchiroptera	number weight (g)				1 1						1 1
Muntjak	number weight (g)			1 7			1 6	1 5			3 16
Pteropus	number weight (g)			1 8							1 8
Rattus	number weight (g)		1 3	6 13		8 19		4 7	2 9		21 51
Tragulid	number weight (g)		1 6	5 37	1 2	1 4	1 2	4 13	3 4		16 68
Total		14 106	281 1256	198 509	71 336	796 6364	337 3101	1581 29334	254 6208	13 148	3844 47352

Table 10.5 Minor mammal teeth

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Bandicota	number			1							1
	weight (g)			1							1
Bubalus	number					2	1	1			4
	weight (g)					6	3	2			11
Canis	number			4		2	2	2			10
	weight (g)			18		12	14	11			55
Capra	number		1	7		4	2	4	1		19
	weight (g)		6	43		25	14	17	6		111
Cervus	number		1	3	1	3	3	6	1		18
	weight (g)		5	12	7	13	14	22	7		80
Equus	number					3		8			11
	weight (g)					60		170			230
Herpestes	number								1		1
	weight (g)								1		1
Hystrix	number			1							1
	weight (g)			2							2
Lepus	number		2	1	1	3		1	1		9
	weight (g)		5	1	1	4		1	1		13
Muntjak	number			1	1	1		1			4
	weight (g)			4	3	4		5			16
Rattus	number			1		2	1	1			5
	weight (g)			1		2	1	1			5
Total	number		4	19	3	20	9	24	4		525
	weight (g)		16	82	11	126	46	229	15		

Table 10.6 Carved bone and Ivory objects

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Mirror stand	number										
	weight (g)					1					1
Draftsman?	number										356
	weight (g)					356					
Draftsman?	number										
	weight (g)					1					1
Handles?	number					23.12					23.12
	weight (g)										
Handles?	number							1			2
	weight (g)					1		4.12			6.59
Bangles	number					2					3
	weight (g)			1		12.31					20.82
Carved plaques	number										
	weight (g)					4					4
Vessels	number					121.65					121.65
	weight (g)										
Carved disc	number					2					3
	weight (g)			1		36.62					55.08
Carved disc	number										
	weight (g)			1							1
Styli	number										3.82
	weight (g)					3.82					
Arrowheads	number										
	weight (g)					2		2			4
Arrowheads	number					9.93		11.21			21.14
	weight (g)										
Cube or dice	number					1		1			2
	weight (g)					3.47		2.92			6.39
Cube or dice	number										
	weight (g)				1						1
Total	number				2.95						2.95
	weight (g)										
Total	number			3	1	14		4			22
	weight (g)			30.79	2.95	565.57		18.25			617.56

Table 10.7 Birds

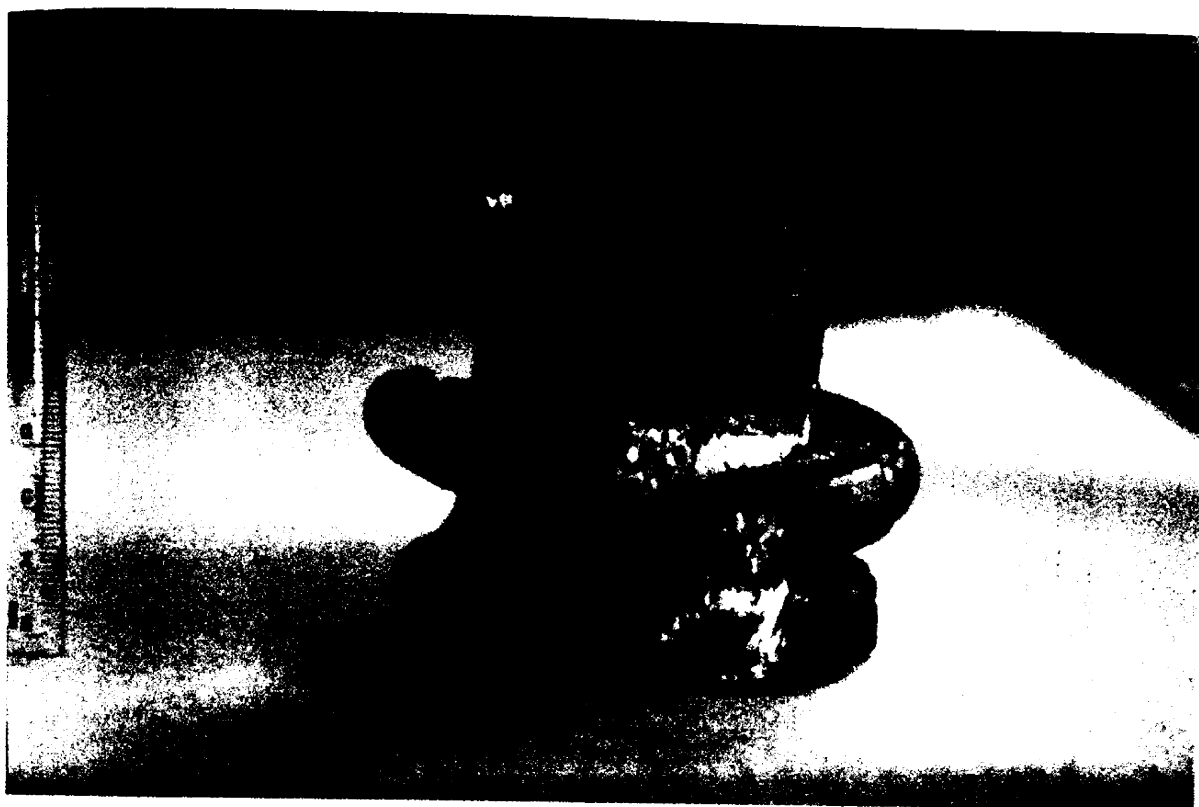
Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Gallus	number		2	8	1	11	6	4			32
	weight (g)		7	24	3	35	18	9			96
Pavo	number				1	2	1	2			7
	weight (g)				8	8	2	26			44
Aredaea	number			1							1
	weight (g)			10							10
Unident- ified	number			3	4	1	1	1	1		11
	weight (g)			9	13	4	1	3	2		32
Total	number		2	12	6	14	8	8	1		51
	weight (g)		7	43	24	47	21	38	2		182

Table 10.8 Reptiles and fish

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Crocodylus	number		1	3							
	weight (g)		3	11							4
Liasomys	number		1	11	14	57	3	6			
	weight (g)		2	70	108	330	3	10			92
Melanochely	number		2	8	13	55	1				623
	weight (g)		33	75	115	490	13				79
Monitor	number			3	2	13	3	1			
	weight (g)			13	7	51	10	2			22
Serpentoid	number	1	1	3							83
	weight (g)	2	2	6							
Turtle	number										6
	weight (g)										10
Shark or ray	number		1	2				3	15		18
	weight (g)		2	4				65	305		370
Mystus	number			2							3
	weight (g)			2							6
Ocephelus	number			2							2
	weight (g)			8							2
Unidentified	number		3	4	2	7	45	15	1		77
	weight (g)		28	35	18	22	126	68	7		304
Total	number	1	9	38	31	132	52	26	16		172
	weight (g)	2	70	224	248	893	152	145	312		2046

Table 10.9 Shells

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Anadara	number					3					3
	weight (g)					21					21
Bivalvia	number			6			3	2			11
	weight (g)			18			3	6			27
Cryptozonia	number		2	28	6	1	7	8			52
	weight (g)		2	30	8	2	8	8			58
Cypraea	number			4	2						6
	weight (g)			13	4						17
Lamelliden	number			2	1	3	3	2	1		12
	weight (g)			5	4	8	10	13	3		43
Oliva	number						1	3			4
	weight (g)						8	12			20
Pila	number			3	1		2	1			7
	weight (g)			4	2		2	7			15
Strombus	number			3		2	1	1	1		9
	weight (g)			36		28	15	17	17		113
Thais	number				2						2
	weight (g)				3						3
Turbinella	number	1	1	6	1	1	2	3			16
	weight (g)	2	5	48	9	7	13	28			112
Total	number	1	3	52	13	10	19	20	2		120
	weight (g)	2	7	154	30	66	59	91	20		429



Ivory mirror stand (sf 10196)

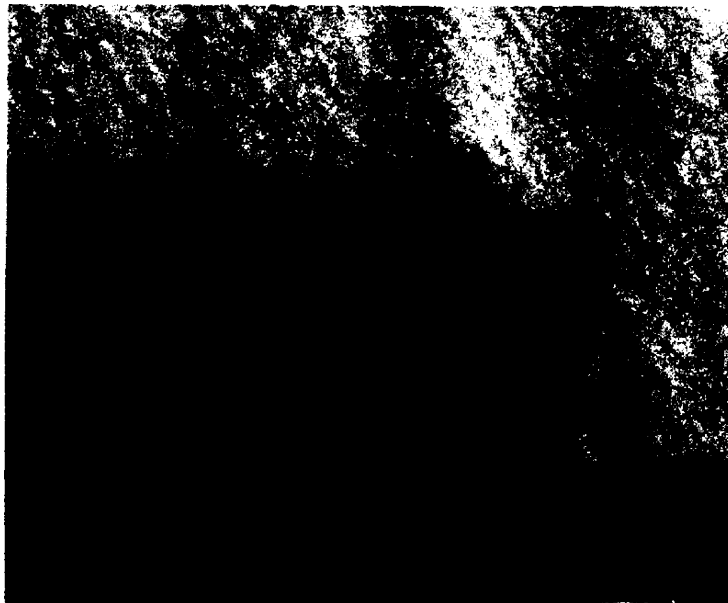


Ivory mirror stand (sf 10196)

Plate 10.1: Ivory and bone objects

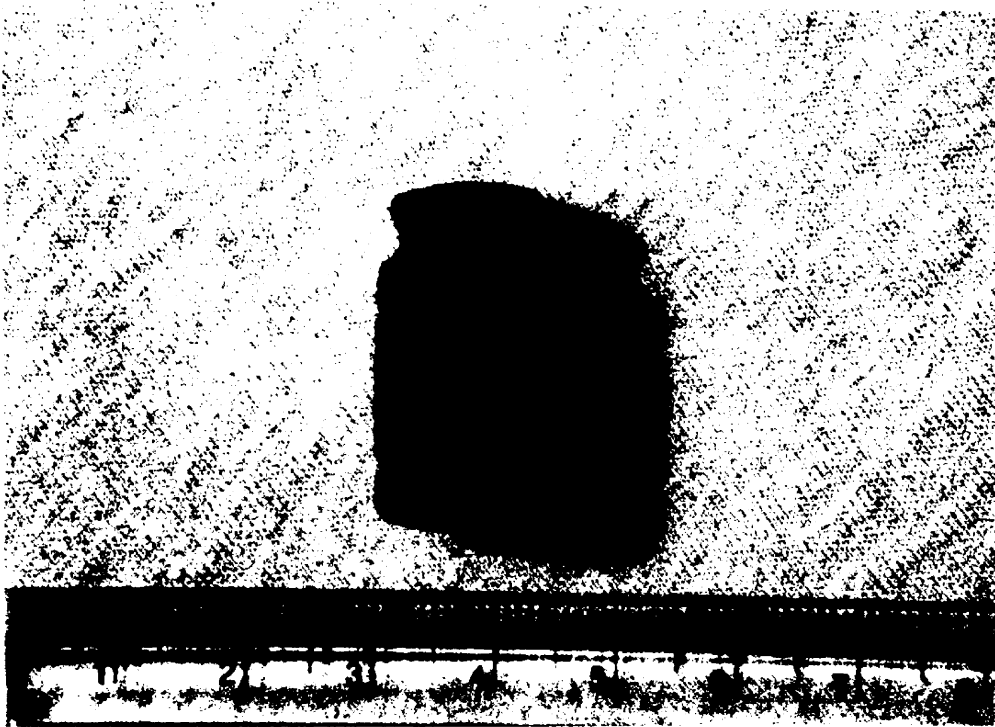


Ivory draftsman, counter or stopper (sf 6619)

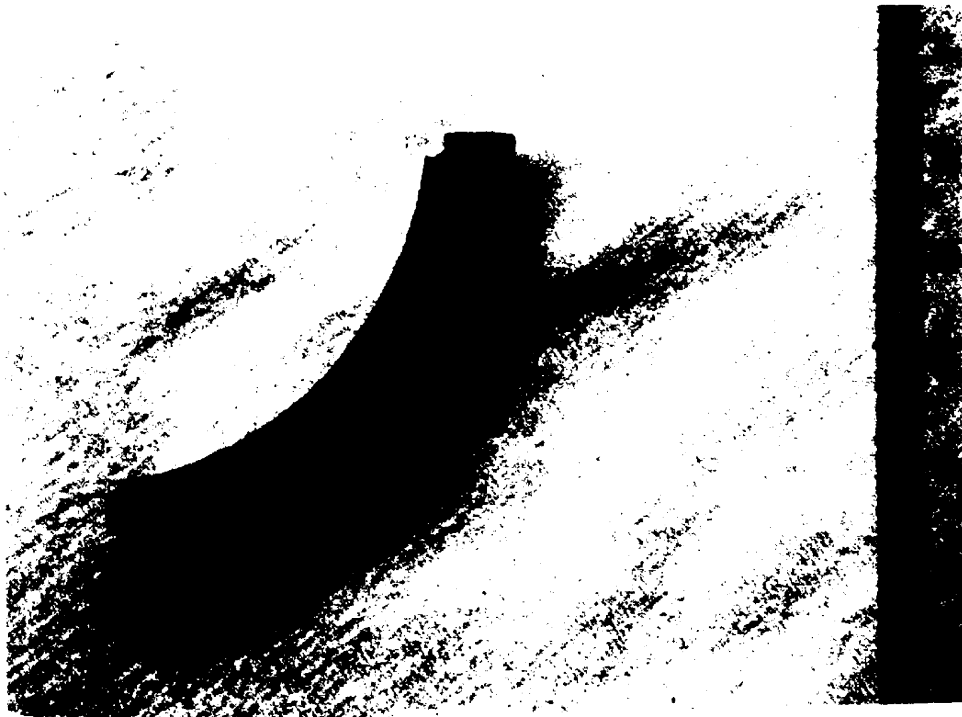


Ivory draftsman, counter or stopper (sf 6619)

Plate 10.2: Ivory and bone objects



Ivory handle or terminal (sf 16406)



Ivory bangle (sf 1569)

Plate 10.3: Ivory and bone objects

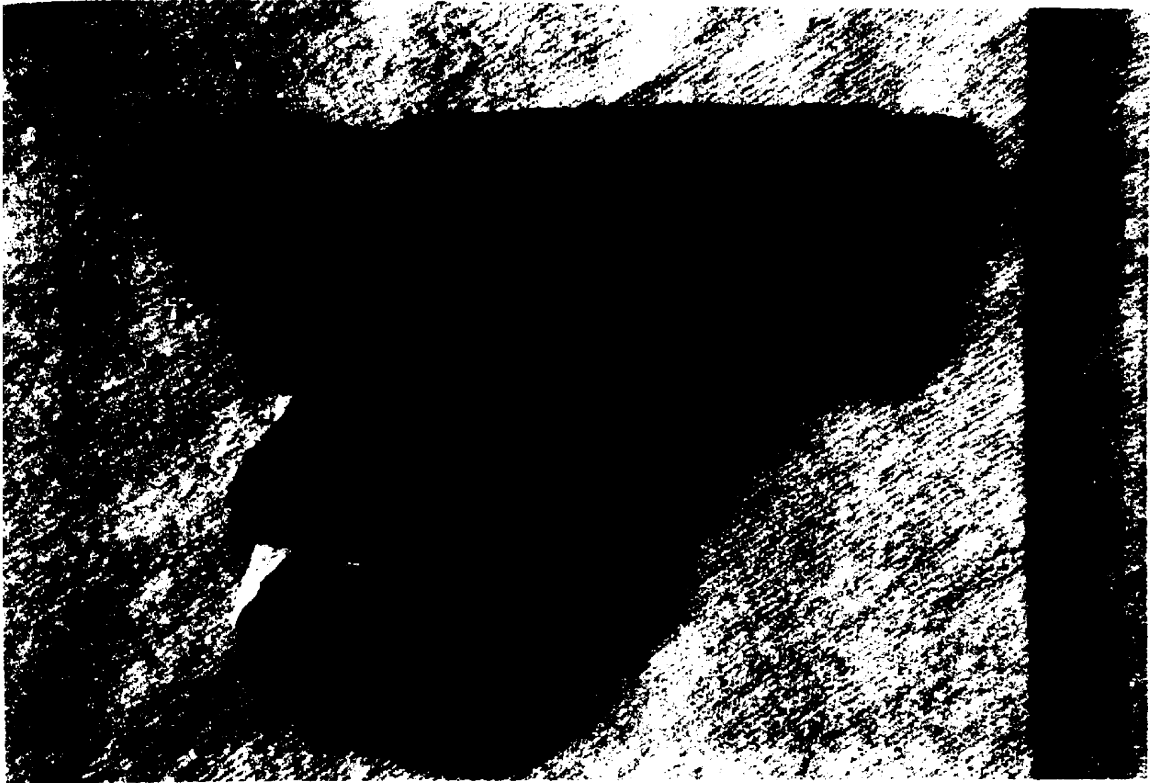


Ivory plaque (sf 6810)



Bone plaque (sf 6988)

Plate 10.4: Ivory and bone objects



Bone plaque (sf 6981)



Bone plaque (sf 6372)

Plate 10.5: Ivory and bone objects



Ivory vessel lid (sf 6370)

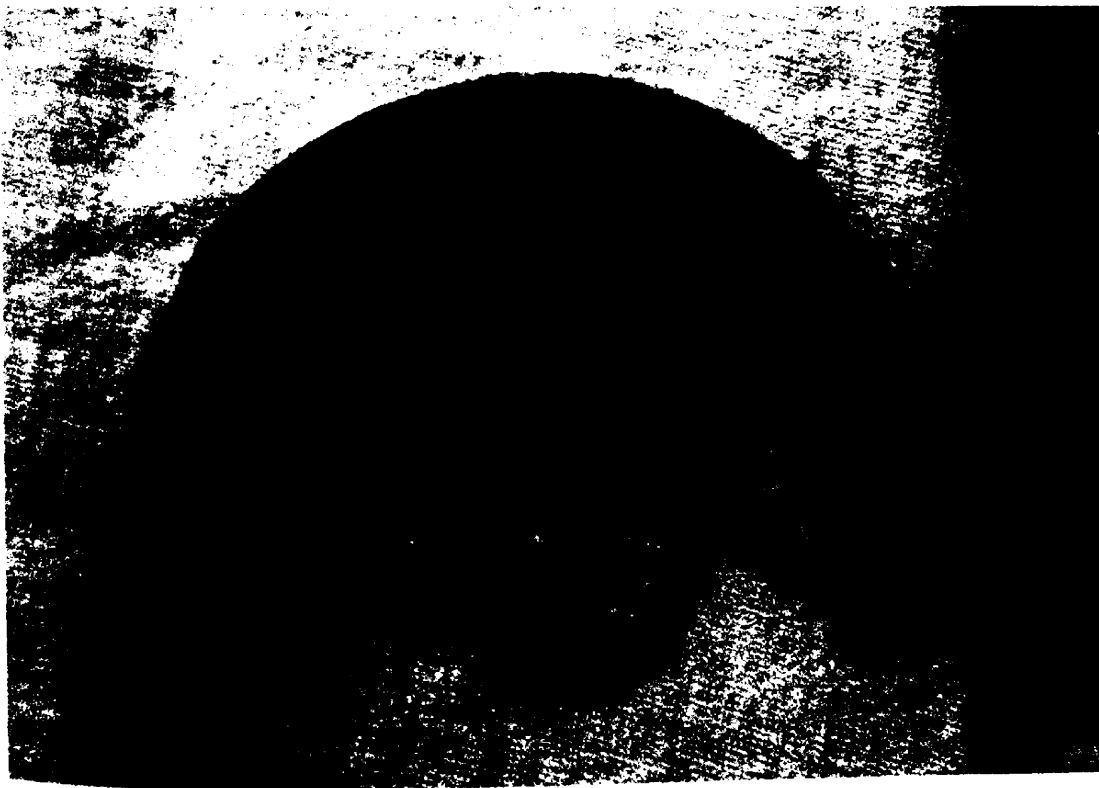


Ivory vessel lid (sf 6370)

Plate 10.6: Ivory and bone objects



Ivory vessel base (sf 6970)



Ivory vessel base (sf 6970)

Plate 10.7: Ivory and bone objects

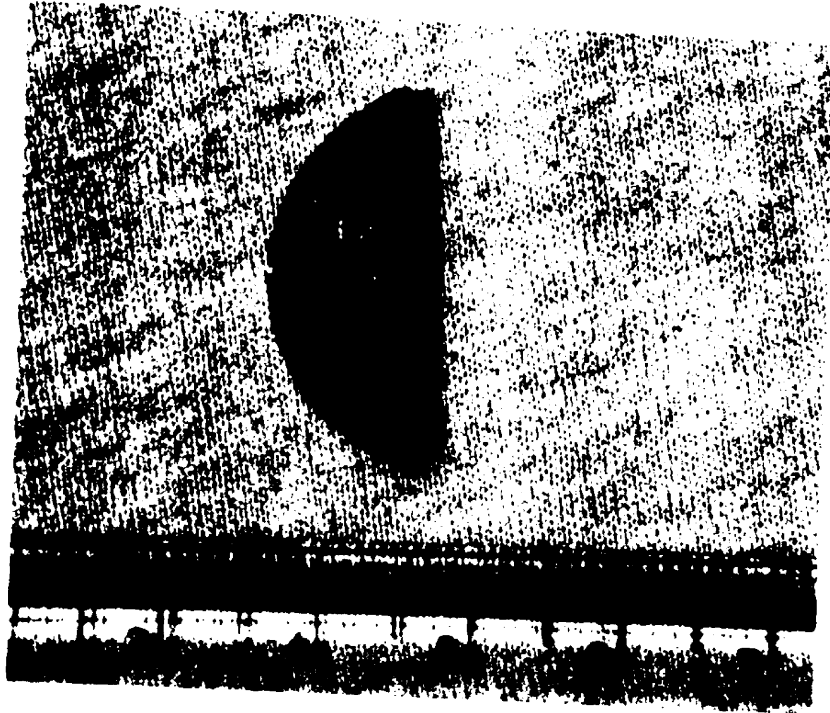


Ivory vessel lid (sf 8025)

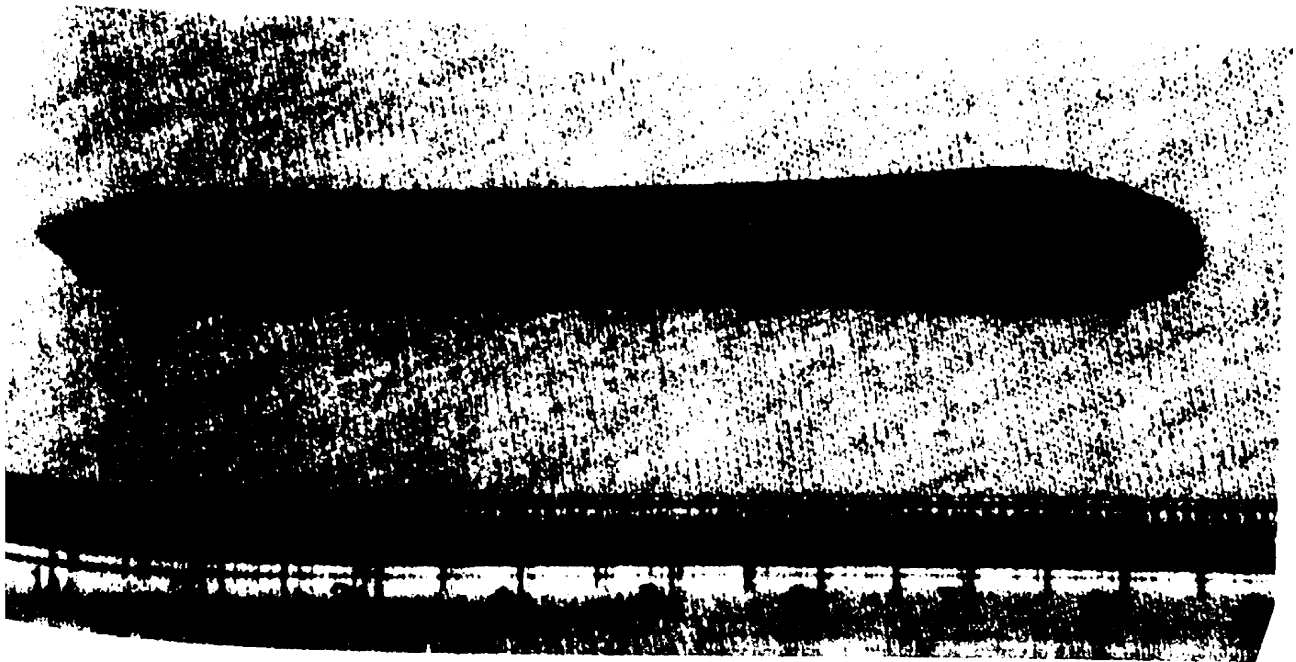


Ivory vessel lid (sf 8025)

Plate 10.8: Ivory and bone objects

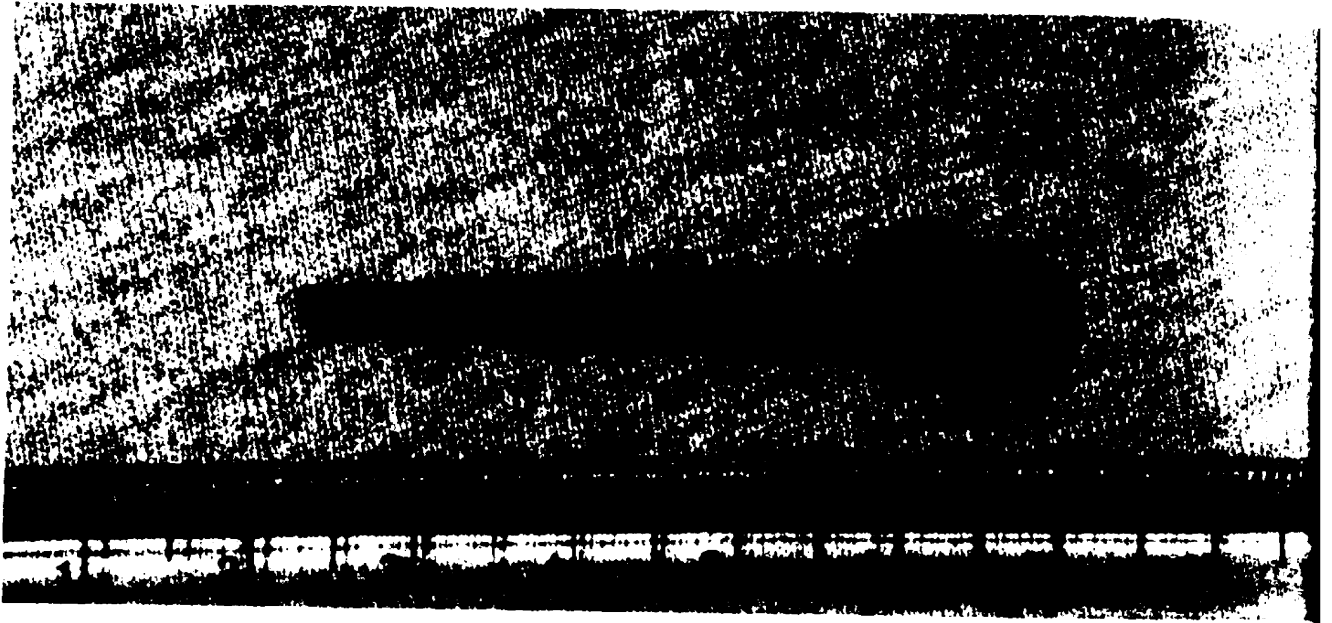


Carved ivory disc (sf 15686)

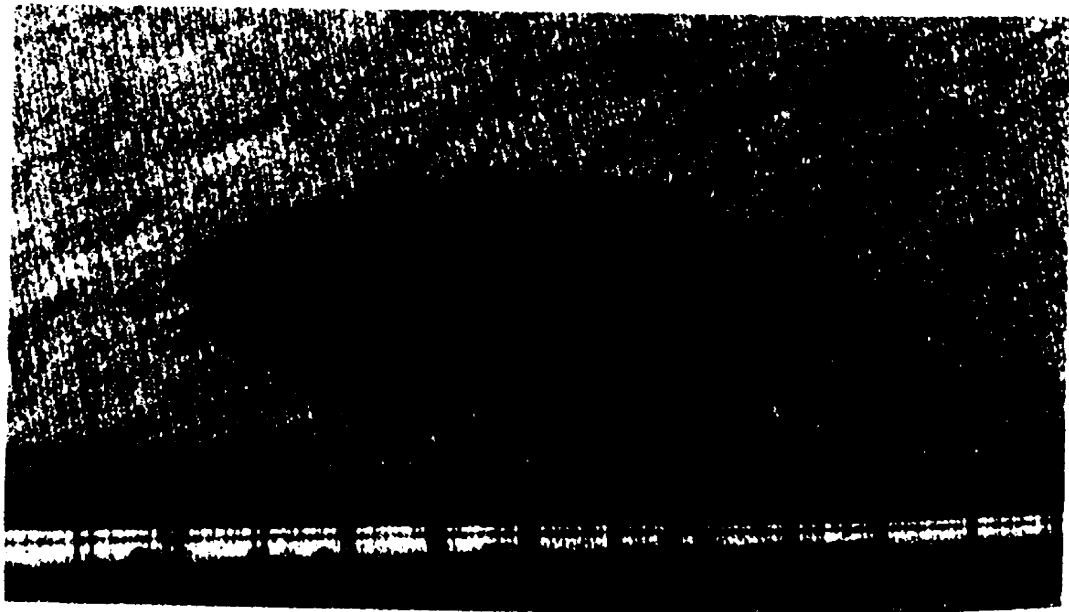


Ivory styli (sf 15026)

Plate 10.9. Ivory and bone objects



Bone arrowhead (sf 15687)



Bone arrowhead (sf 16589)

Plate 10.10: Ivory and bone objects

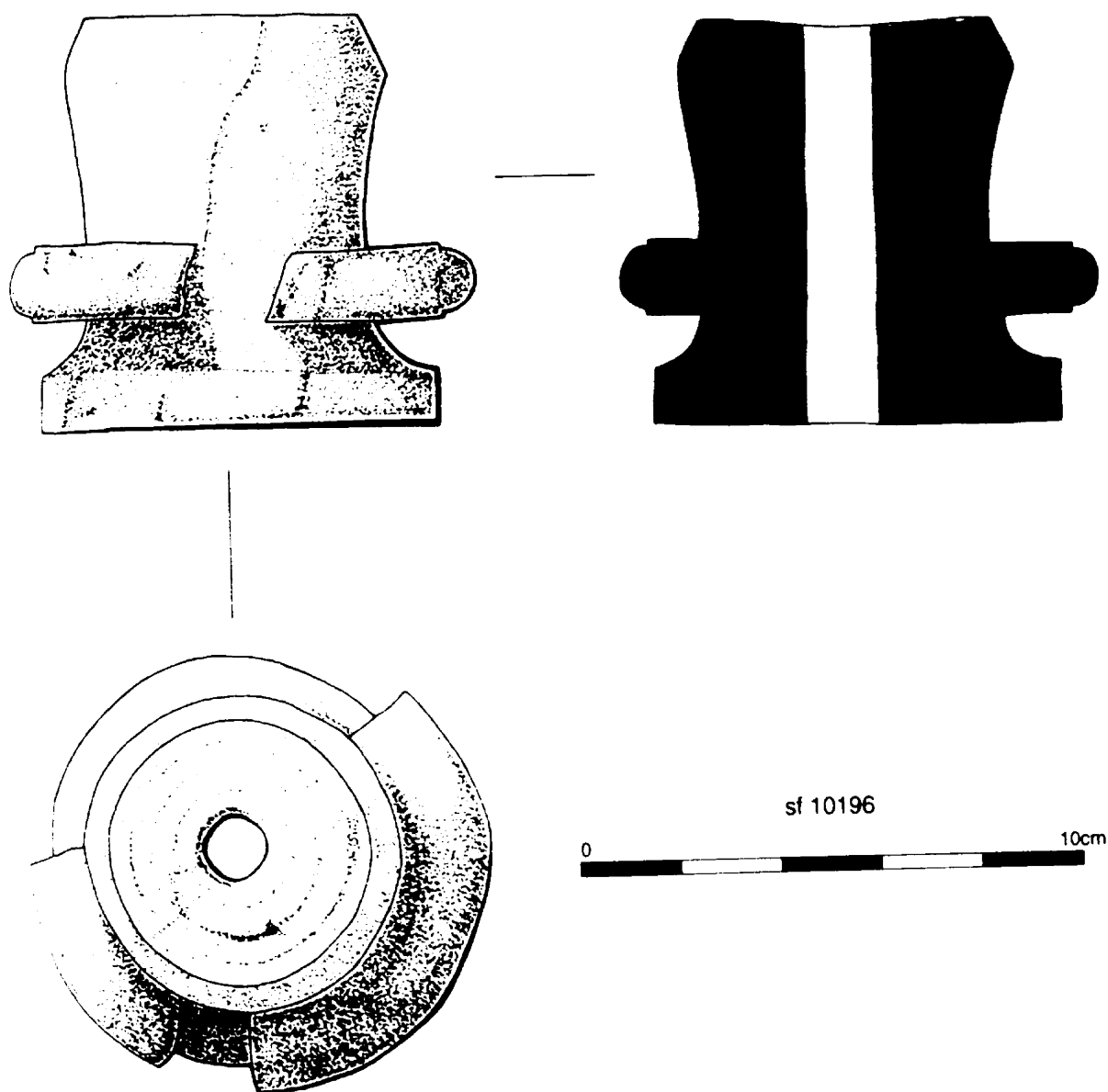


Figure 10.1 Ivory and Bone Objects

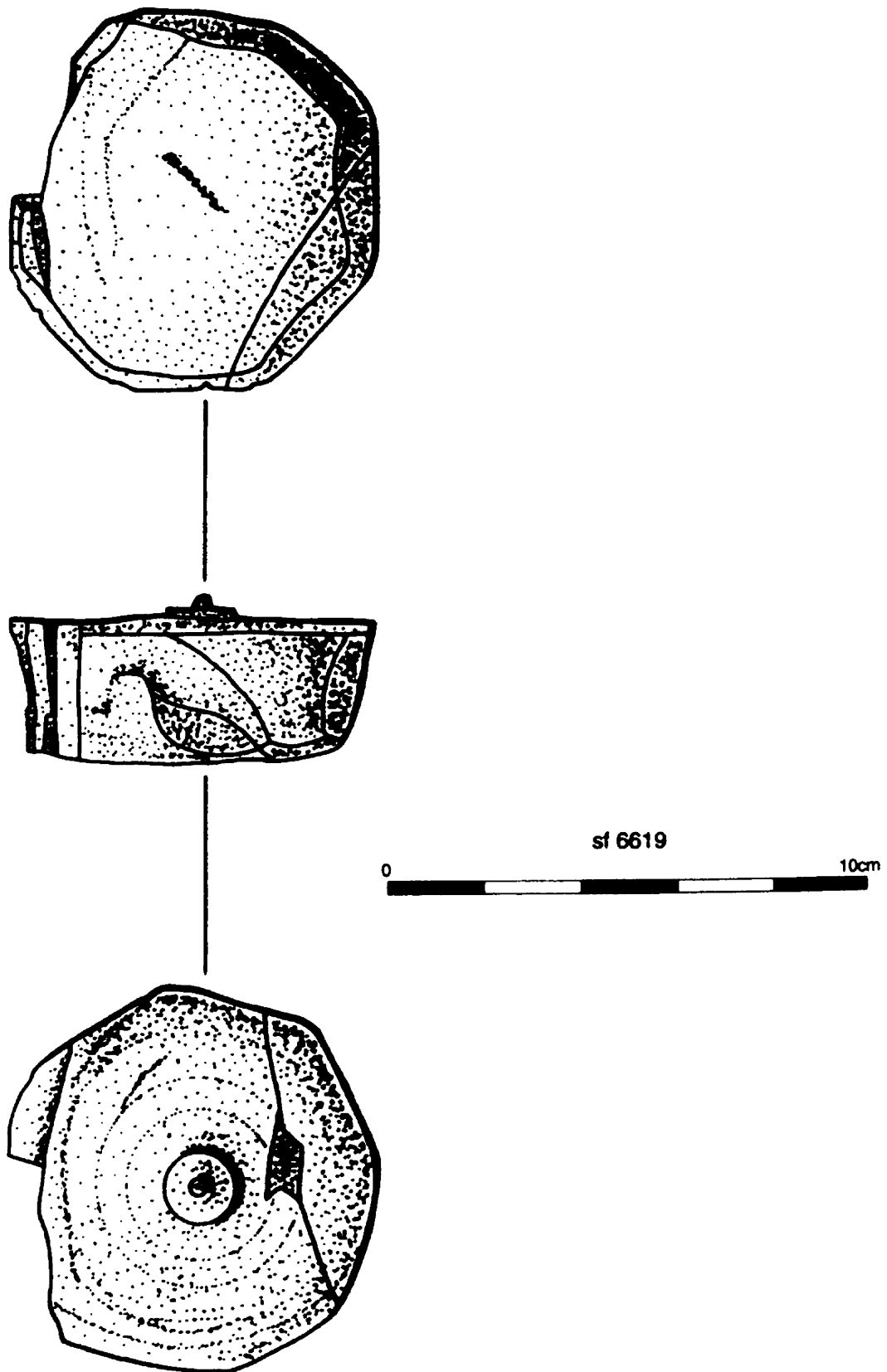


Figure 10.2 Ivory and Bone Objects

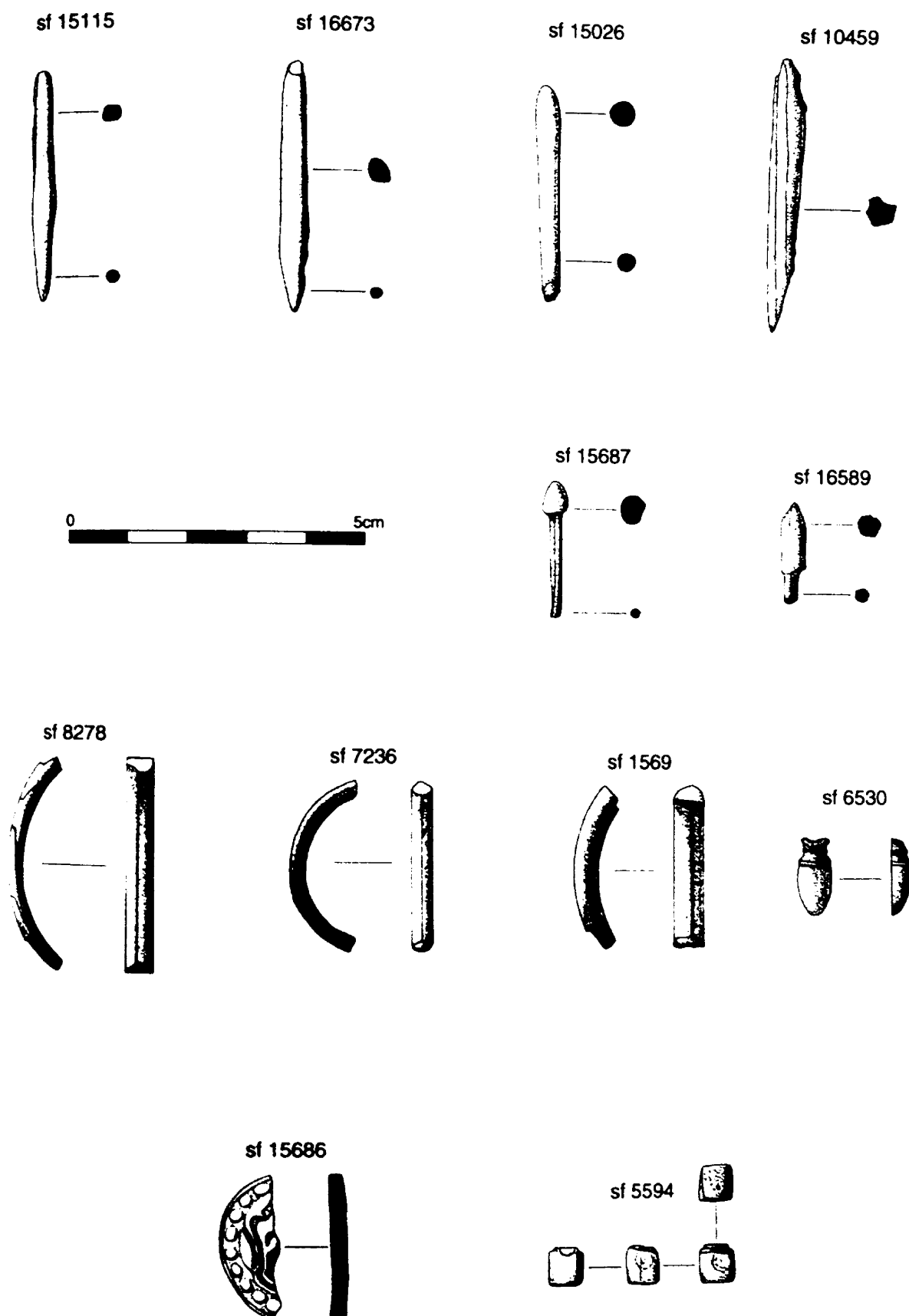


Figure 10.3 Ivory and Bone Objects

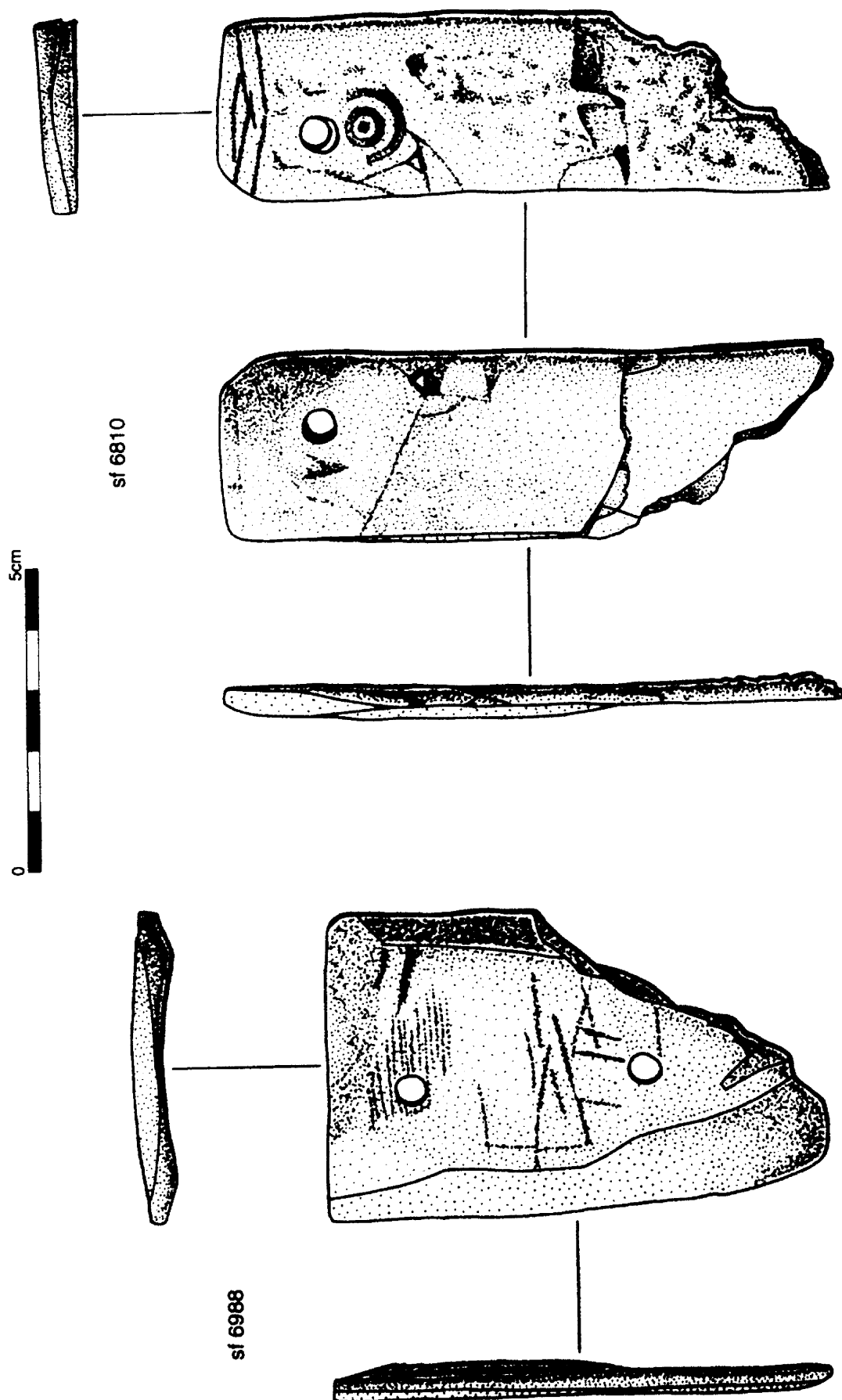
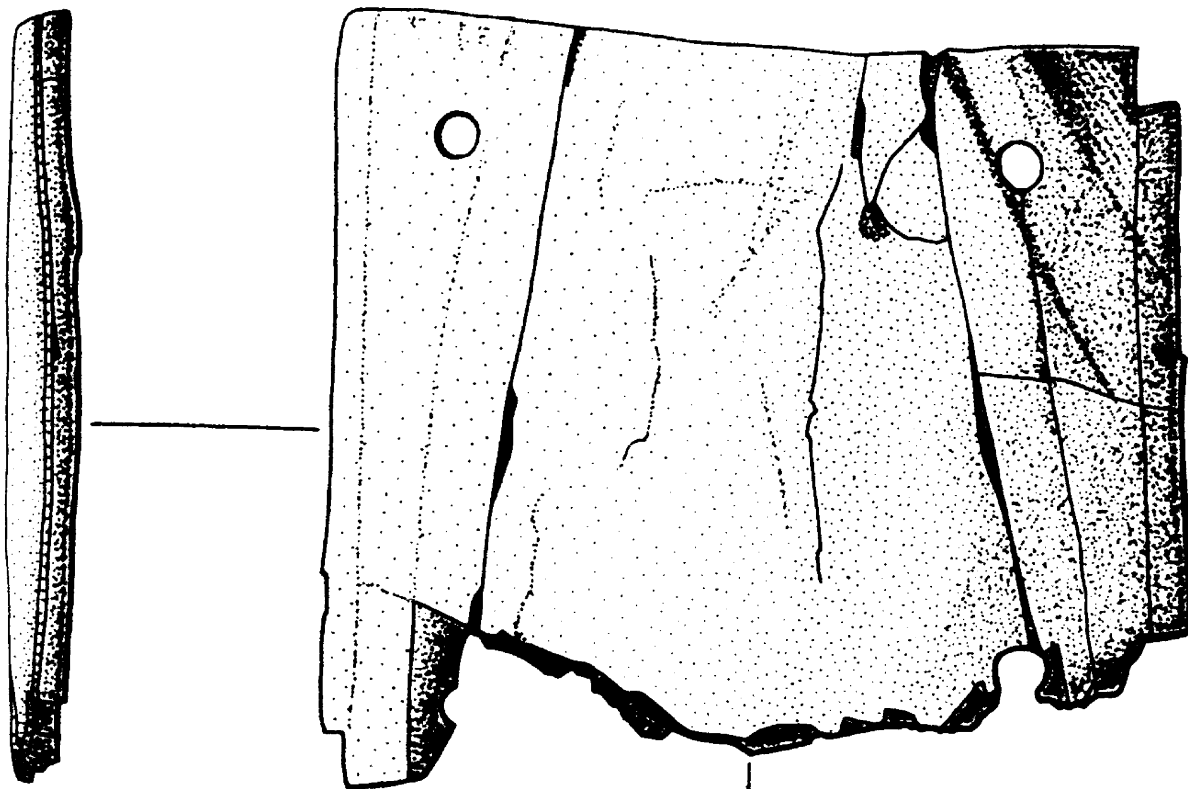


Figure 10.4 Ivory and Bone Objects



sf 6372



sf 6981

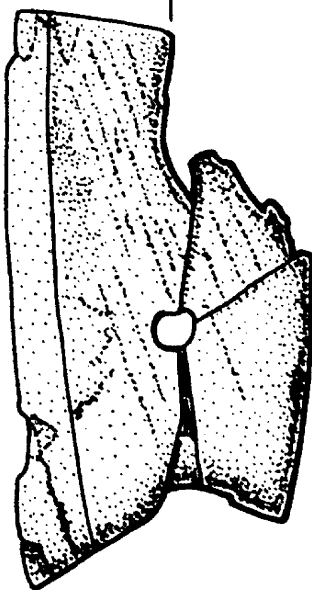


Figure 10.5 Ivory and Bone Objects

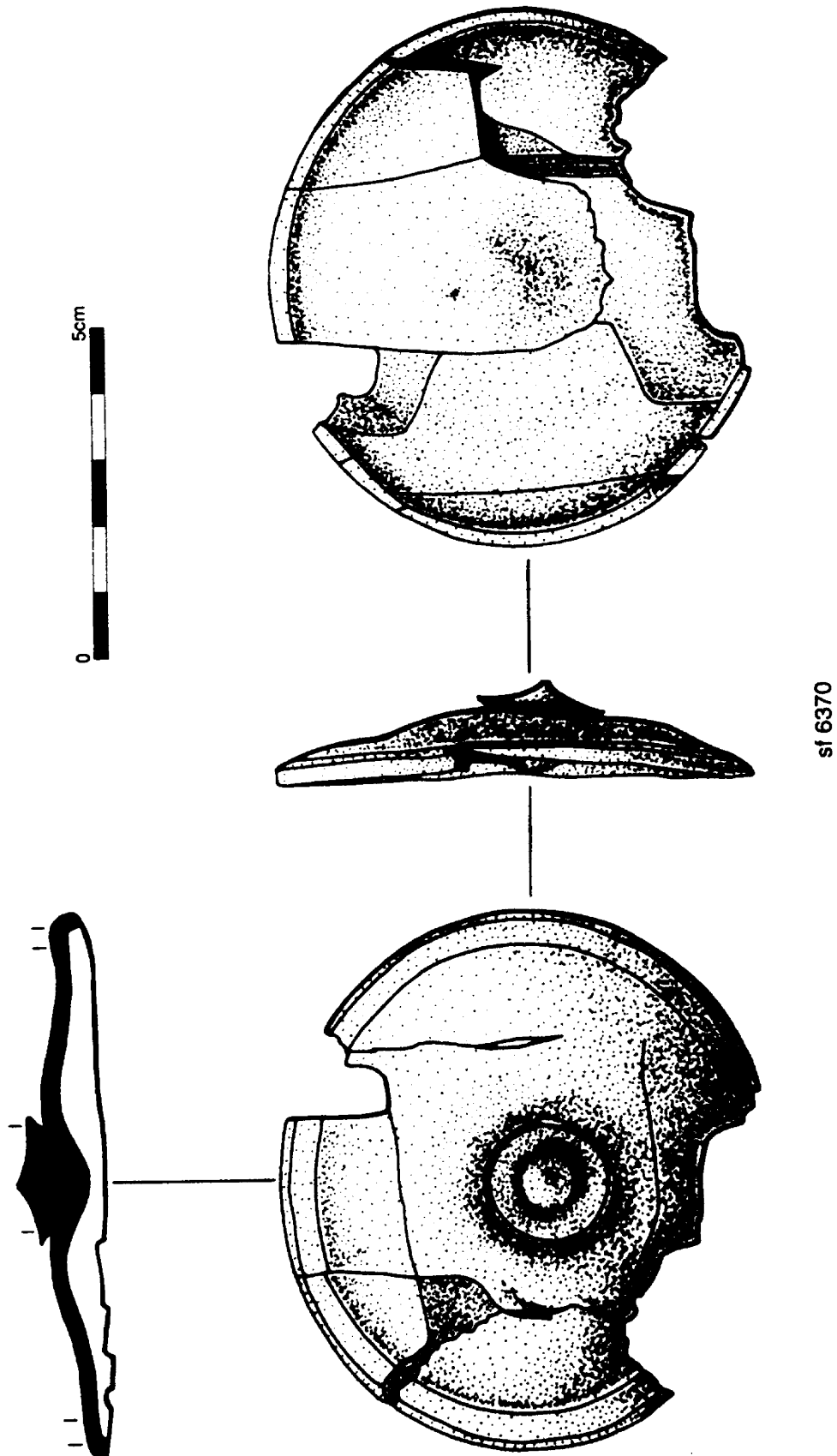


Figure 10.6 Ivory and Bone Objects

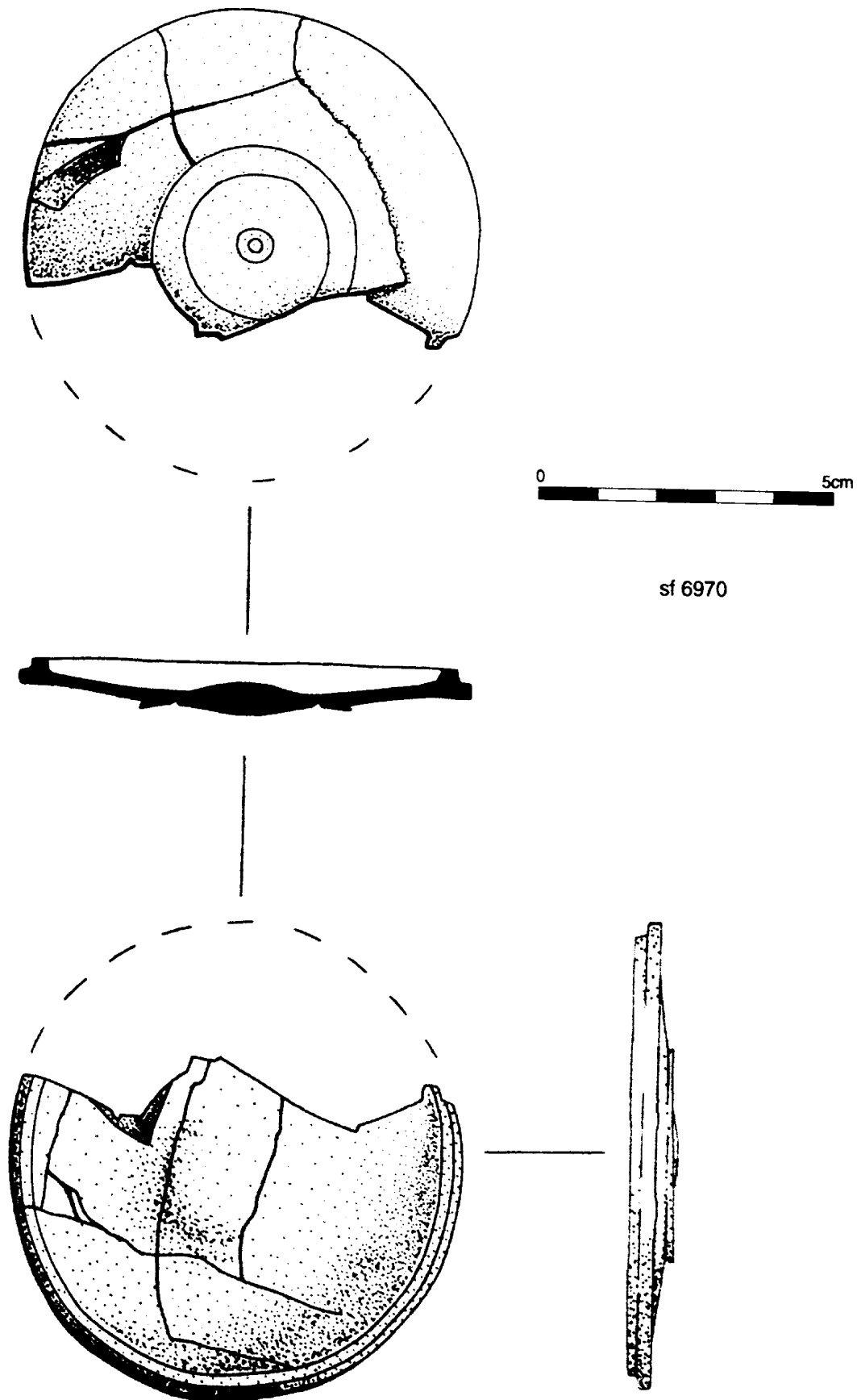


Figure 10.7 Ivory and Bone Objects

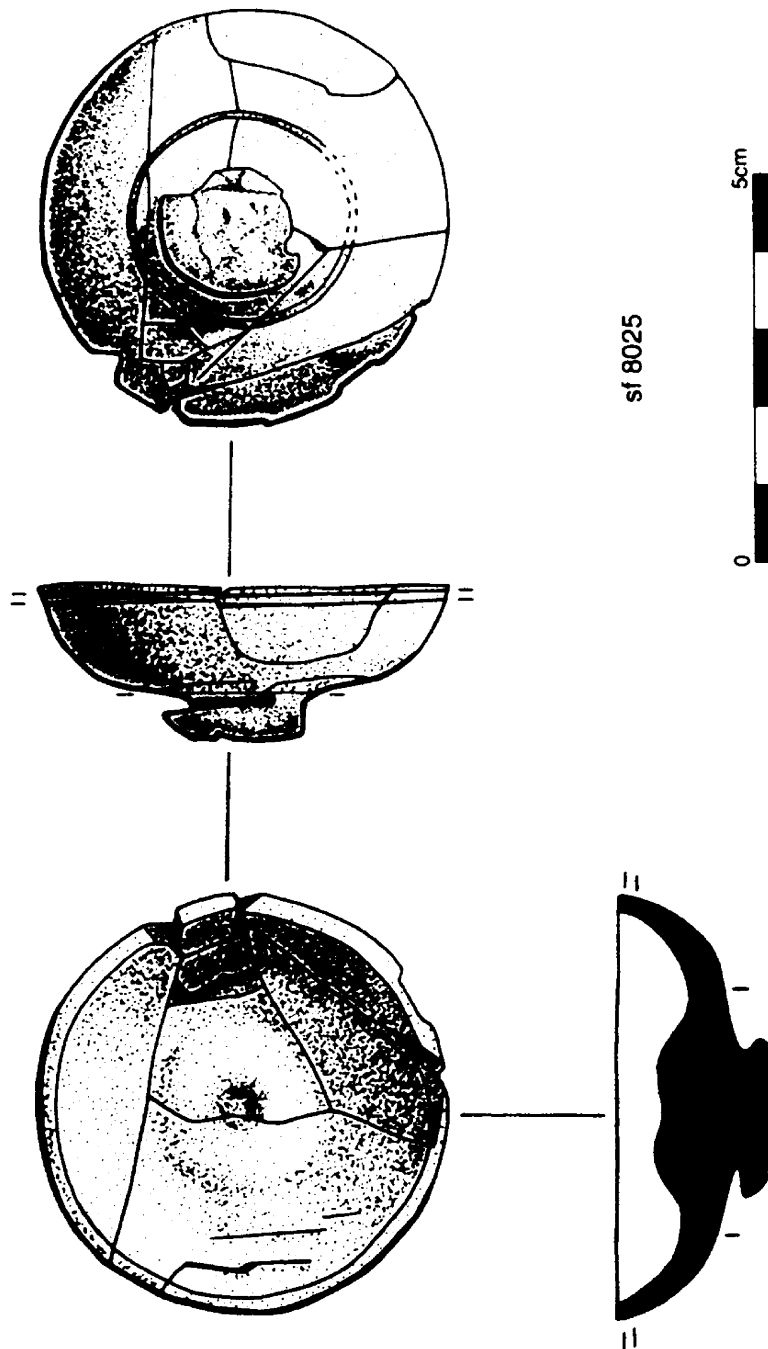


Figure 10.8 Ivory and Bone Objects

CHAPTER 11

HUMAN REMAINS

Chris Knusel, Robin Coningham and Seema Mann

11.1 Introduction

Within the cultural sequence of trench ASW2 two possible examples of human funerary behaviour were encountered. The first of these was in the form of physical remains (see Table 11.1) and the second relates to a feature in the form of stratigraphic phase XVII – feature 1371, a pit which measured 1.25 m in diameter and 0.52 m in depth. The discovery of the latter and the human remains within the trench was something of a surprise, as both ancient texts and modern practices in South Asia generally forbid the depositing of human remains within a designated urban area (see Maps 21 and 22). This chapter will investigate the evidence and evaluate the possible explanations for their presence.

11.2 The human remains

Human remains were recovered from a total of 31 contexts (Table 11.1). These ranged in skeletal element from individual teeth to cranial or long bone fragments and in weight from 1 to 185 g. Their total combined weight was 737 g. Fifteen examples were recovered from structural phase XCV, the robber pitting episodes, while 16 were recovered from structural contexts. The oldest example (sf 30038) from structural contexts came from Iron Age context 1191, the fill of a pit (1190) cut during stratigraphic phase XXI. The fragment weighed 7 g and was identified as cranial, a parietal fragment from the area of the lambda. The function of the pit 1.10 m in diameter and 0.27 m deep is unclear, but it is located centimetres to the south of a concentration of 13 postholes, which may represent a structure of structural period J5. A single phalanx (sf 30037) weighing 5 g was recovered from context 416, within the collapse of a wall of structural period G5. This was the only example dating to the Early Historic period. Five contexts associated with the Anuradhapura-period pillared hall of structural period F also yielded human remains. A single incisor (sf 30036) was found in the general foundation packing soil 365, deposited during stratigraphic phase XCII, while a further eight teeth (sfs 30030, 30031, 30032, 30033 and 30034) were found within the packing soils of individual stone pillars. In addition a vertebra fragment (sf 30035) and phalanx (sf 720) were found in the packing of pillar 363 and a further phalanx in the floor foundation packing 200.

The greatest concentration of human remains in structural contexts occurred during structural periods D and B – the Late Anuradhapura or Polonnaruwa periods – with examples being found in most phases. The mandible of a young individual (sf 226) was excavated within

context 25, the floor foundation of structural phase B1. A second mandible (sf 662) was excavated in the fill (187) of wall foundation slot 238 and a metatarsus (sf 30009) in the fill (59) of posthole 236; both features are also part of structural phase B1. A total of nine human remains were recovered from combined levelling contexts 24, 27 and 41. These consisted of two incisors (sfs 107 and 30008), one canine (sf 78), one premolar (sf 30008), one molar (sf 116), two ulna fragments (sfs 30004 and 30007), one radius fragment (sf 30005) and a fragment of cranium (sf 30006). A canine and a fragment of the right distal end of a humerus of a gracile individual (sf 30003) were recovered from levelling context 14, while five fragments of the left side of a cranium (sf 30001) were recovered from context 26 – the foundation of a badly robbed structure constructed on 14. A single canine (sf 26) was recovered from a general levelling phase of wattle and daub debris (9) during stratigraphic phase CVI. In the final phase of structural period B, two cranial fragments (sfs 24 and 31) were recovered from context 17. This context, a clayey sand, occurs within a badly robbed-out structure and is disturbed by the root action of a coconut palm.

Some 534 g of human remains were recovered from the fills of the robber pits of stratigraphic phase XCV: 20 cranial fragments, 3 teeth, 1 mandible and 15 tibia fragments were recovered from pit 274; 1 canine and 2 cranial fragments were recovered from pit 275; 1 fragment of humerus from pit 282; 1 molar from pit 302; 1 cranial fragment from pit 312; 2 cranial fragments from pit 297; 1 cranial fragment from pit 319; and 1 limb bone and 3 teeth from pit 357. In summary, it can be noted that about half of the identified human remains from trench ASW2 are mandibular and cranial (385 g). It is unlikely that complete human burial was occurring within the habitation as we have found a bias towards the recovery of skull elements. It also seems unlikely that any form of complete habitational burial was taking place, as the evidence for articulation, weight, element representation and concentration of human remains is very low. For example, during structural period B some 172 g of human remains were recovered from five structural phases. In comparison, some 11,958 g of animal remains were recovered from the same structural phases; they are also present in almost every context, while the concentration of human remains is not as dense. Identifications and descriptions were made by Chris Knusel (CJK), Kalum Nalinda (KN) and Jude Perera (JP).

Special find no: 24 Stratigraphic phase: CXIII No. of fragments: 1 Description: Cranial fragment.	Context: 17 Weight: 10g Identified by: CJK	Special find no: 59a Stratigraphic phase: XCVI No. of fragments: 1 Description: Fragment of metatarsus.	Context: 59 Weight: 3g Identified by: KN & JP
Special find no: 31 Stratigraphic phase: CXIII No. of fragments: 1 Description: Cranial fragment.	Context: 17 Weight: 8g Identified by: KN & JP	Special find no: 42a Stratigraphic phase: XCV No. of fragments: 2 Description: One fragment of right temporal, gleboid fossa, external auditory meatus and one fragment of right occipital from area of occipito-mastoid suture. New breakages present, both could be from a single individual. Minimum number of individuals = 1.	Context: 42 Weight: 15g Identified by: CJK
Special find no: 26 Stratigraphic phase: CIV No. of fragments: 1 Description: Canine.	Context: 9 Weight: 2g Identified by: KN & JP	Special find no: 56a Stratigraphic phase: XCV No. of fragments: 1 Description: Maxillary right canine.	Context: 56 Weight: 2g Identified by: CJK
Special find no: 26a Stratigraphic phase: CIV No. of fragments: 1 Description: Cranial fragment (parietal).	Context: 26 Weight: 20g Identified by: KN & JP	Special find no: 76a Stratigraphic phase: XCV No. of fragments: 1 Description: Unidentified fragment of limb bone.	Context: 76 Weight: 75g Identified by: KN & JP
Special find no: 26b Stratigraphic phase: CIV No. of fragments: 5 Description: Cranial fragments of left side.	Context: 26 Weight: 25g Identified by: CJK	Special find no: 80a Stratigraphic phase: XCV No. of fragments: 8 Description: Cranial fragments.	Context: 80 Weight: 25g Identified by: KN & JP
Special find no: 14a Stratigraphic phase: CII No. of fragments: 1 Description: Canine.	Context: 14 Weight: 2g Identified by: KN & JP	Special find no: 80b Stratigraphic phase: XCV No. of fragments: 1 Description: Incisor.	Context: 80 Weight: 1g Identified by: KN & JP
Special find no: 14b Stratigraphic phase: CII No. of fragments: 1 Description: Fragment of right distal humerus with perforated aperture – associated with gracile individuals. Old breakage across epicondylar areas. Perforated septal aperture. Minimum number of individuals = 1.	Context: 14 Weight: 20g Identified by: CJK	Special find no: 80c Stratigraphic phase: XCV No. of fragments: 1 Description: Molar.	Context: 80 Weight: 2g Identified by: KN & JP
Special find no: 24a Stratigraphic phase: C No. of fragments: 1 Description: Ulna fragment (proximal end).	Context: 24 Weight: 10g Identified by: KN & JP	Special find no: 80d Stratigraphic phase: XCV No. of fragments: 1 Description: Molar.	Context: 80 Weight: 2g Identified by: KN & JP
Special find no: 78 Stratigraphic phase: C No. of fragments: 1 Description: Canine.	Context: 27 Weight: 1g Identified by: KN & JP	Special find no: 88a Stratigraphic phase: XCV No. of fragments: 1 Description: Incisor.	Context: 88 Weight: 5g Identified by: KN & JP
Special find no: 107 Stratigraphic phase: C No. of fragments: 1 Description: Incisor.	Context: 27 Weight: 2g Identified by: KN & JP	Special find no: 88b Stratigraphic phase: XCV No. of fragments: 2 Description: Two canines.	Context: 88 Weight: 6g Identified by: KN & JP
Special find no: 27a Stratigraphic phase: C No. of fragments: 1 Description: Fragment of radius.	Context: 27 Weight: 12g Identified by: KN & JP	Special find no: 107a Stratigraphic phase: XCV No. of fragments: 1 Description: Cranial fragment.	Context: 107 Weight: 10g Identified by: KN & JP
Special find no: 116 Stratigraphic phase: C No. of fragments: 1 Description: Molar.	Context: 27 Weight: 2g Identified by: KN & JP	Special find no: 107b Stratigraphic phase: XCV No. of fragments: 1 Description: Fragment of femur.	Context: 107 Weight: 20g Identified by: KN & JP
Special find no: 41a Stratigraphic phase: C No. of fragments: 1 Description: Fragment of ulna.	Context: 41 Weight: 13g Identified by: KN & JP	Special find no: 121a Stratigraphic phase: XCV No. of fragments: 2 Description: Cranial fragment – parietal with sagittal suture. One portion of alveolar process of maxilla-canine area of right side. Minimum number of individuals = 1.	Context: 121 Weight: 10g Identified by: CJK
Special find no: 6622 Stratigraphic phase: XCIX No. of fragments: 1 Description: Fragment of mandible.	Context: 187 Weight: 20g Identified by: KN & JP	Special find no: 123a Stratigraphic phase: XCV No. of fragments: 1 Description: Parietal fragment – sagittal suture present.	Context: 123 Weight: 8g Identified by: CJK
Special find no: 226 Stratigraphic phase: XCVII No. of fragments: 1 Description: Fragment of mandible (young individual).	Context: 25 Weight: 10g Identified by: KN & JP	Special find no: 149a Stratigraphic phase: XCV No. of fragments: 3	Context: 149 Weight: 5g Identified by: CJK

Human Remains

Description: **One very abraded cranial fragment. One diaphyseal fragment – unidentified. One fragment from area of mastoid process (left?) with mineral staining on internal and external surfaces.**

Special find no: 211a
Stratigraphic phase: XCV
No. of fragments: 1
Description: **Molar.**

Context: 211
Weight: 3g
Identified by: KN & JP

Special find no: 225a
Stratigraphic phase: XCV
No. of fragments: 1
Description: **Fragment of tibia.**

Context: 225
Weight: 90g
Identified by: KN & JP

Special find no: 255a
Stratigraphic phase: XCV
No. of fragments: 1
Description: **Left side of ascending ramus of mandible – female? Gonial angle, mandibular condyle absent. Coronoid process bears what appears to be an older breakage, alveolar bone has evidence of older and newer breaks.**

Context: 255
Weight: 15g
Identified by: CJK

Special find no: 255b
Stratigraphic phase: XCV
No. of fragments: 14
Description: **14 fragments of right tibia, probably from single element and single individual. Minimum number of individuals = 1.**

Context: 255
Weight: 30g
Identified by: CJK

Special find no: 1585
Stratigraphic phase: XCV
No. of fragments: 17
Description: **16 separate cranial fragments – parietals; left and right sides. One fragment of a flat bone with exposed trabeculae digastric fossa of occipital area (right). Many recent breakages present, no osseous pathology, normal cranial bone, likely a single individual. Minimum number of individuals = 1.**

Context: 256
Weight: 185g
Identified by: CJK

Special find no: 259a
Stratigraphic phase: XCV
No. of fragments: 1
Description: **Fragment of humerus.**

Context: 259
Weight: 20g
Identified by: KN & JP

Special find no: 320a
Stratigraphic phase: XCV
No. of fragments: 1
Description: **Cranial fragment.**

Context: 320
Weight: 5g
Identified by: KN & JP

Special find no: 720
Stratigraphic phase: XCIII
No. of fragments: 1
Description: **Phalanx.**

Context: 200
Weight: 3g
Identified by: KN & JP

Special find no: 304a
Stratigraphic phase: XCIII
No. of fragments: 3
Description: **Three molars.**

Context: 304
Weight: 5g
Identified by: KN & JP

Special find no: 304b
Stratigraphic phase: XCIII
No. of fragments: 1
Description: **Premolar.**

Context: 304
Weight: 1g
Identified by: KN & JP

Special find no: 304c
Stratigraphic phase: XCIII
No. of fragments: 3
Description: **Two incisors.**

Context: 304
Weight: 2g
Identified by: KN & JP

Special find no: 304d
Stratigraphic phase: XCIII
No. of fragments: 3
Description: **Molar.**

Context: 304
Weight: 1g
Identified by: KN & JP

Special find no: 304a
Stratigraphic phase: XCIII
No. of fragments: 1
Description: **Canine.**

Context: 304
Weight: 1g
Identified by: KN & JP

Special find no: 363a
Stratigraphic phase: XCIII
No. of fragments: 3
Description: **Vertebra fragment.**

Context: 363
Weight: 3g
Identified by: KN & JP

Special find no: 365a
Stratigraphic phase: XCII
No. of fragments: 1
Description: **Incisor.**

Context: 365
Weight: 3g
Identified by: KN & JP

Special find no: 416a
Stratigraphic phase: XCI
No. of fragments: 1
Description: **Phalanx.**

Context: 416
Weight: 5g
Identified by: KN & JP

Special find no: 1191a
Stratigraphic phase: XXI
No. of fragments: 1
Description: **Parietal fragment from area of lambda (junction of sagittal and occipital sutures). Right side.**

Context: 1191
Weight: 7g
Identified by: CJK

11.3 Pit 1371

Feature 1371, a pit cut into context 1293 during stratigraphic phase XVII, represents something of a puzzle from its initial excavation (Coningham and Allchin 1992: 157; 1995: 164). It was recorded as a 1.25 m diameter, straight-sided 0.85 m deep pit, filled with ash and sealed with a cap of red gritty sand (1372) (see Volume I: 93). While it contained a number of broken sherds in its basal sandy fill (1483), its major ashy fills (1382 and 1404) contained an iron arrowhead, an unidentified copper-alloy object, one polished stone rubber, two Black and Red Ware cups with holes bored into their bases and two ceramic vessels of Black and plain ware (Volume I: xxvi). As noted earlier (*ibid.*), it is very tempting to draw analogies between this feature and the category of pit burial features known as pit graves (Allchin and Allchin 1982: 334). Indeed, the artefacts in 1371 appear to be very similar to those usually deposited in such burials (Wheeler 1948; Subrahmanyam 1975; Begley 1981). Such features, albeit usually associated

with human remains, are found at sites in both peninsular India, at Maski for example, and in Sri Lanka, at Pomparippu for example (Thapar 1957; Begley 1981). The example from ASW2, however, did not contain human remains and furthermore was located in close proximity to domestic structures. Usually such features are associated with cemeteries.

11.4 Ancient and modern patterns of disposal of the dead

The presence of human remains and pit 1371 within the trench at ASW2 present something of a surprise, as they represent the deposition of elements of human remains within the Citadel of Anuradhapura. Moreover, most of the examples occur after the construction of the fortifications around the city. As the majority of modern and ancient attitudes towards death in South Asia concentrate on its polluting nature, the presence of these remains within a city is all the more surprising. The

following section will attempt to summarize some of the more important and relevant practices.

Wheatley (1971) has long held that the Early Historic text, the *Arthashastra*, offers an understanding of the cosmo-magical symbolism of city planning. Indeed, he holds that the aim of city planning was to produce a reduced version of the cosmos on earth, where priority is given to sacredness and purity. Irregularities occurring in the cosmic order would be interpreted as being misfortunate, and city planners believed that the fortunes of a city could only be assured if its site was adapted to the currents of cosmic breath. Their aim was to minimize adverse influences and to derive maximum advantage from the purity of the city. One way of doing this was by the careful separation of the residences of the living from places of the dead, as the latter were associated with evil influences (*ibid.*). The latter concept appears to be supported by the *Arthashastra*, which mentions that the living quarters of heretics and *candalas* (outcasts) should be on the outskirts of the cremation ground outside the city (*Arth.*2.4.21). The city was also to be equipped with a gate that would be used solely for the carrying of corpses out of the city. Moreover, if another gate was used, a fine of two hundred *panas* would be imposed (*Arth.*2.36.31–33). Fines were also to be imposed for throwing a human body out in the city or for depositing and burning a corpse anywhere outside a cremation ground; the penalty imposed was twelve *panas* (*ibid.*). The *Laws of Manu* also record that if an individual accidentally touched a human bone, he became impure and had to undergo ritual purification (*Manudharmasastra*: Buhler 1886). In a later text, the *Manasara*, it is noted that land with exposed human bones is unsuitable for the laying out of a city (*Manasara*: Acharya 1918). Tamil poetry dating to between the third century BC and the third century AD also makes references to burial areas being located outside the habitation area. The *Purananuru* commonly uses the term *Kadu*, or *purangadu*, to refer to wasteland set apart for burial in the wilds near the village, while the *Puram* refers to “The grave-yard (*kadu*), the place of the ancients, on the outskirts of the town or on the skirts of the hilly ground” (Srinivasan 1946: 11–12). It is interesting to note that when the Sri Lankan chronicle, the *Mahavamsa*, describes King Pandukabhaya’s laying out of Anuradhapura, the cemetery is recorded as having been located outside the city by its western gate, with the *candalas*’ settlement close by (*Mvs.*x.88–93).

Similar traditions of excluding human remains from settled sites and urban areas are also practised today within South Asian society. In Kumbapettai in Tanjore [Tanjavur] District, South India, the village’s six cremation and burial grounds are all located on the outskirts of the settled area (Gough 1960: 6–8). All three cremation grounds in the Tanjore village of Sripuram are also located on the outskirts (Beteille 1969: 6–8), and a similar spatial pattern is found in Sri Lankan settlements. It is interesting to note that the dead and cemeteries are also often associated with both Hindu and Buddhist asceticism (Tambiah 1984: 37; Coningham 1995a). The *Aghori*, ascetic *sadhus* of India and Nepal, in particular, are perceived as being beyond normative society as they are involved with witchcraft and the controlling of ghosts

and spirits. Such perceptions are strengthened because many of them drink from human skulls, live within cremation grounds, dress in funeral shrouds stolen from cremation grounds and cover their bodies in ashes from cremation bench platforms (Hartsuiker 1993).

11.5 Comparative sites

In light of the above evidence, textual and modern, it is useful to compare the evidence from Anuradhapura with that from other sites in order to identify whether the presence of human remains and empty pit graves at ASW2 can be interpreted as anything more than a freak occurrence.

11.5.1 Human remains

A search through excavation reports of Iron Age, Early Historic and later sites in India identified three possible examples of the occurrence of human remains within an urban site. These examples were at Rajghat, Arikamedu and Maski (Narain and Roy 1978; Wheeler 1946; Thapar 1957). The city of Rajghat, located within the Gangetic valley, is one of the core sites for the Early Historic urbanization of South Asia (Erdosy 1995), however the human remains discovered date to the medieval period. Two north–south oriented inhumations were recorded lying on lime mortar floor 9B in an early phase of period VI in trench RGT-III (Narain and Roy 1978: 46). Period VI is dated to c. AD 1200. The excavators note that the material culture of that period differs dramatically from that of the preceding periods (*ibid.*: 33). This, when combined with the recorded sackings of the city, suggests that the presence of inhumations may suggest a collapse of purity prohibitions or perhaps that the inhumations represent a new form of burial rite (inhumation within the city) accompanying the new types of material culture. It is possible that the remains are those of people of the Muslim faith. However, as there are no plans or photographs of the burials, it is unclear whether the head is indeed turned toward the *qebila* as would be expected (*Enc. Iran.*: IV.II, 564). Arikamedu, however, represents a far closer analogy to Anuradhapura in terms of both date and geography. The site, located on the Coromandel coast of East India, was excavated by Wheeler in 1945 and by Casal in 1947 (Wheeler 1946; Casal 1949). Rather better known for the presence of Rouletted ware, Arretine pottery and amphorae, the site yielded three fragments of human remains from the estuarine slime of the Northern Sector (Wheeler 1946: 114). These consisted of a fragment of the shaft of a fibula and a fragment of an adult left mandible, which were recovered from Arretine-producing layers, while a fragment of a juvenile left mandible was recovered from a post-Arretine layer (*ibid.*: 116). The general interpretation of objects found within the estuarine slime was that they had sunk there rather than been deposited within *in situ* habitation levels (*ibid.*: 26). The final example is at the megalithic site of Maski. Here it is interesting to note that both occupation and burial appear to have been carried out side by side during period II (the ‘megalithic’ period) at locality MSK-10 (Thapar 1957: 25). It is possible, however, that the postholes cited as evidence of

habitation were connected with some form of funerary structure.

It should also be noted that two additional cases of human remains occurring within residential deposits have been reported in Sri Lanka. This evidence comes from the Alahana Parivena monastic complex of Polonnaruwa, where a number of ceramic vessels containing human remains were found buried in the terraces surrounding the Rankot Vihara (Prematilleke 1982a: 43). However, the context of sanctified space may explain the presence of such material, a very different context to the residential levels of trench ASW2. The presence of scattered human remains at Tissavaharana are less easy to explain (Weisshaar and Wijeyapala, pers. comm.).

11.5.2 Pit 1371

It is now also clear that, if 1371 is a pit burial, it is not the only example to lack human remains. Two such examples were found during the 1947 excavations at Brahmagiri, Mysore State. This site comprises of two roughly concentric elements on the northern side of the 2000 m high Brahmagiri outcrop, a 200 m wide habitation area in the lower slopes surrounded by a 400–500 m wide ring of megalithic cemeteries located on the level ground below (Wheeler 1948: 186). Although the majority of the megalithic cists excavated yielded human remains, cists II, III and IV had none (*ibid.*: 190). Similarly, Thapar's main cutting, MSK-10, at the megalithic site of Maski clearly demonstrates that the various old land surfaces within the 'megalithic'-culture period were cut by numerous pit features (Thapar 1957: plate VII). Some of these pit features contained burials, boulders and grave goods, while others were completely empty (*ibid.*). A further example is the Iron Age megalithic site of Nagarjunakonda on the southern bank of the river Krishna (Subrahmanyam 1975: xvii). All 15 excavated megaliths comprised a central pit surrounded by an outer circle of boulders. In all cases ceramic vessels and iron objects were recovered from ashy beds, however three megalithic tombs (III, IV and IX) had no evidence of human remains (*ibid.*: 166–94). As megalith IV, the largest example, had no human remains, Subrahmanyam suggests that they had been removed from the tomb by 'members of this family while migrating from the valley' and enshrined 'in a new special edifice' (*ibid.*: 169). This suggestion would be analogous to the practices of the Merina of Madagascar, who also bury their dead in megalithic structures. They believe that the tombs are an agency for merging ancestors, *demes* (kin-groups) and land. In the same way that land often has to be regrouped, so are the corpses – ensuring that the common substance of the *deme* is not widely separated. Therefore when a new tomb is built, a number of corpses of *deme* members from other tombs must be brought in before an individual can be placed in it. There can never be a single individual in a tomb (Bloch 1982). The analogy with the Merina is merely one possible explanation. It is clear however that attempts to differentiate such features as burial pits, as opposed to other functions, may be creating non-valid typologies or schemes of classification. Further discussion of such

themes is illustrated by the current debate on the function of British Iron Age pits (Cunliffe 1991; Hill 1995).

11.6 Conclusion

One of the strongest points that came out of the literature search was that there are very few examples of the excavation of human remains within urban sites in South Asia. Moreover, apart from within the Iron Age peninsular and Sri Lankan 'megalithic' cemetery complexes, there are almost no human remains dating to the Early Historic period, the exception being cremation cists of c. the second century BC at Kalotuwewa. This is quite a spectacular feature if one considers the longevity of some of these massive, densely occupied urban sites. It is evident that some tens of thousands of bodies have been disposed of in such a way as to be invisible in the archaeological record. This is clearly related to the widespread practice of cremation followed by the immersion of the remains in a body of water. Parry has estimated that, in 1977 alone, almost 30,000 corpses were disposed of at two Benares [Varanasi] cremation *ghats* (Parry 1980: 90). The majority were cremated on the *ghats* before the remains were taken by boat to the centre of the Ganges, but a number were also taken out in an uncremated state, weighed down and sunk (*ibid.*). Not all the corpses are completely cremated or properly weighed down. Indeed, Murray commented in 1905 that many partially burnt corpses floated in the river at Benares for several weeks at a time (1905: 142–5). It is interesting to note that Benares clearly attracts its clientele from the surrounding region as well as from the city itself. Parry records that 28.1 per cent of corpses were from the city, 34.4 per cent from within the district and 37.5 per cent from outside – some from as far as London (1980: 90). Similar disposal practices are found throughout the Indian subcontinent. Brahmin and non-Brahmin corpses in Sripuram in Tanjore District, for example, are cremated on the banks of the river Kaveri before being immersed (Beteille 1969: 6–7).

Such practices may help to explain the presence of human remains within the estuarine slime in the Northern Sector of Arikamedu, as Wheeler has suggested that such objects appear to have sunk or rather settled within sediments below the water line (Wheeler 1946: 26). It is possible that such remains were indeed waterborne to their place of deposition, having been immersed in the former course of the Gingee River further upstream. It is also possible that such a model may help us to interpret the presence of human remains within the Citadel of Anuradhapura. As noted in section 11.2 above, 534 g of the ASW2 sample came from the washed fills of robber pits within stratigraphic phase XCV. As is clear from the mixed chronological content of these pits (see Volume I, Chapter 6: 129–30), these remains could have been reincorporated from any of structural periods I, H, G and F. Such a scenario is quite likely, as none of the human remains was articulated and few were even in the same contents, but scattered throughout the sequence. We shall therefore concentrate on interpreting the remaining 203 g which were recovered from structural deposits.

It is clear from Table 11.1 that most of the excavated human remains were recovered from floor foundations.

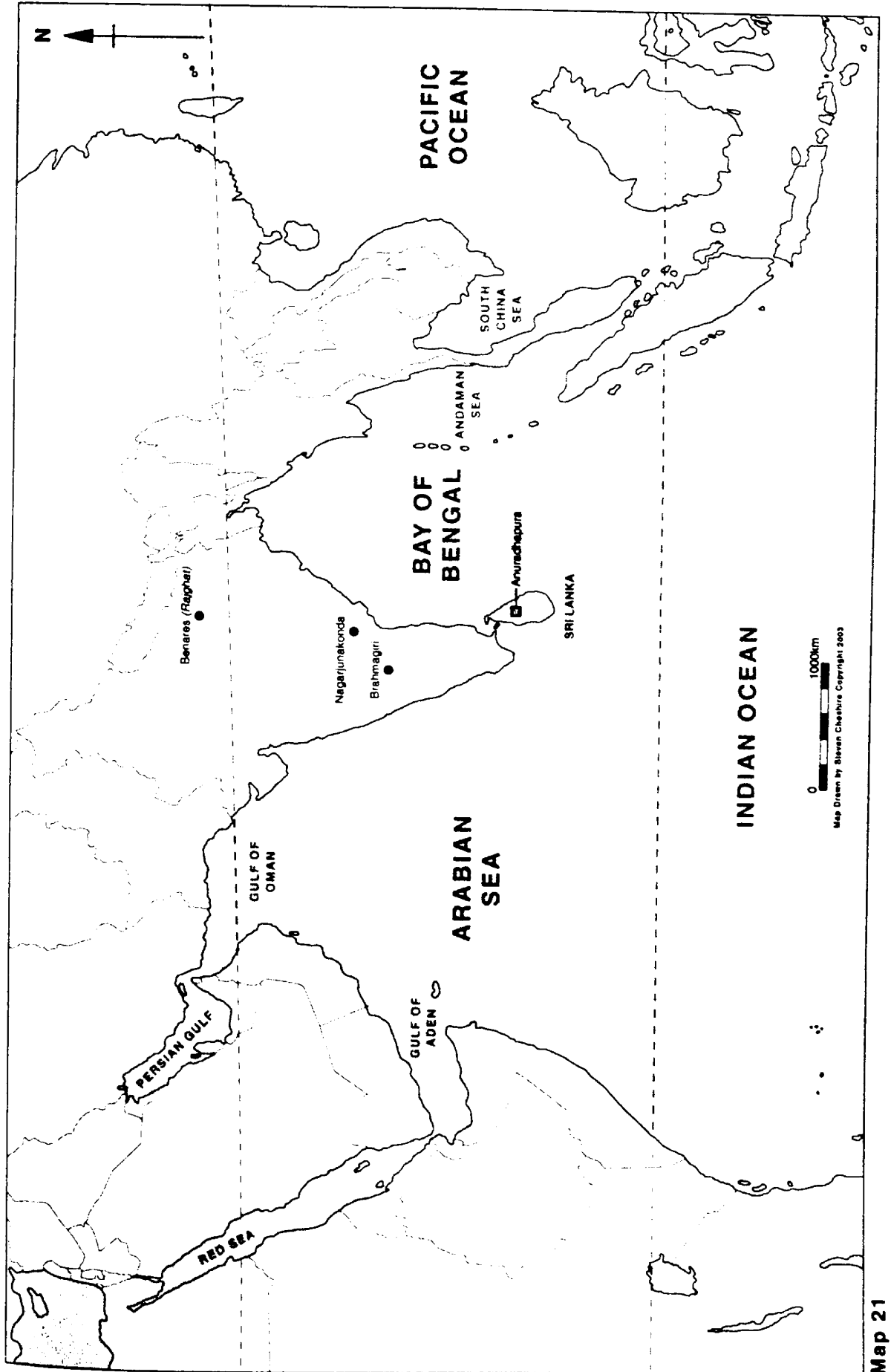
wall collapse or pillar foundations. As the Citadel of Anuradhapura is a 10 m high, artificially constructed mound, it is clear that all the deposits were introduced to the site. While some of these deposits are undoubtedly part of the rampart construction, it is probable that the majority of the deposits were taken to the site as construction materials. As has been demonstrated elsewhere, it is probable that most of the structures at ASW2 were of a wattle and daub nature (Coningham 1994b). It is also probable that redundant buildings were demolished and levelled, and a fresh construction erected above (ibid.). As the materials for the new construction are likely to have been brought in from outside the city, it is possible that this might represent the mechanism for the introduction of the human remains through secondary deposition. Although the area around Anuradhapura has been under intensive cultivation for the past 100 years, no evidence has been found of a cemetery. This means that we have no evidence for the disposal of the site's dead, despite the fact that the site was occupied for over 2000 years, apart from the evidence from ASW2.

It is possible to create a secondary depositional model which will account for both the presence of human remains in the site and the absence of human remains outside. This model hypothesizes that the dead were being cremated (partially or wholly) or being disposed of in bodies of water, either in the tanks or the Malwattu Oya, and that some human skeletal elements would have been incorporated into the fluvial or still water deposits. It should be noted that, although the Malwattu is no wider than 5 m in places, it has been known to rise 10 m when in spate (Coningham 1993: 117). As construction materials such as silts, sands and grits were likely to have been dug out of such deposits, it is also possible that human skeletal elements might have been transported back into the city and incorporated into wattle and daub structures. When those structures decayed or were levelled, the human remains would still remain. The premise, therefore, of this model would be that the human remains were deposited on site accidentally rather than deliberately. Another possible model would be that the human remains represent intentional depositions within the site but had been accidentally exposed by construction work, well or pit digging. This model would directly challenge the validity of textual and contemporary attitudes and practices regarding the polluting nature of death and the dead. Such challenges have already been made as to the nature of craft activities within the Citadel of Anuradhapura, as well as with the nature and advent of Buddhism within the island, both of which are incongruous with expected patterns

(Coningham 1994b, 1995a). It may be that we should view texts such as the *Arthashastra* and *Manasara* as no more than homogenous celestial ideals, whereas temporal cities were widely heterogeneous.

We can also construct several explanatory models for the presence of pit 1371, and at this point perhaps we should try to interpret it along with pit 1190, which included a cranial fragment (sf 30038) in its fill. Although the latter was cut in a later structural phase (J5), its size and location are similar to those of 1371. It was 0.27 m deep and 1.1 m in diameter and was also located just to the south of a posthole structure. It clearly differs from classic Iron Age 'megalithic' graves in that it has no grave goods and only contains 7 g of human bone. As Fleming has pointed out for European examples, however, such features can cater for the needs of unknown rituals (Fleming 1973). It may represent some sort of propitiation, whereby a particular area was being sanctified before habitation was allowed. Such a feature, containing human remains in the case of 1190 or pertaining to contain human remains in the case of 1371, may also have concentrated and validated the status and power of the structure's inhabitants by providing a setting for ritual occurring with the intention of attracting and holding the attention of the living people (ibid.). Some *Aghori* and ascetic monks perform similar roles by living in cemeteries and building their dwellings out of skulls (Hartsuiker 1993; Coningham 1995a). Possibly it also confirms hypotheses that such features represent territorial markers for societies practising long and short fallow cultivation (McIntosh 1985). McIntosh has suggested that, if people were forced to lead a mobile transhumant life by environmental deterioration, they may have used such features to emphasize the link with their traditionally occupied areas. It is also possible that in some cases burials were made within habitation areas and that such differentiation was not made in the Iron Age in the Indian peninsula and Sri Lanka.

In conclusion we can suggest that there is no single explanation for the presence of the two different funereal aspects seen at ASW2. The human remains may have simply been accidentally incorporated in the course of collecting material for building purposes or they may represent burials of individuals who were unintentionally exposed and disarticulated at a later date. Similarly, pits 1371 and 1191 might represent unknown domestic features, propitiation features, ritual settings for maintaining the power and status of a leader or, quite simply, territorial markers. Only further evidence from the site will allow us to start to fully understand the processes at work.



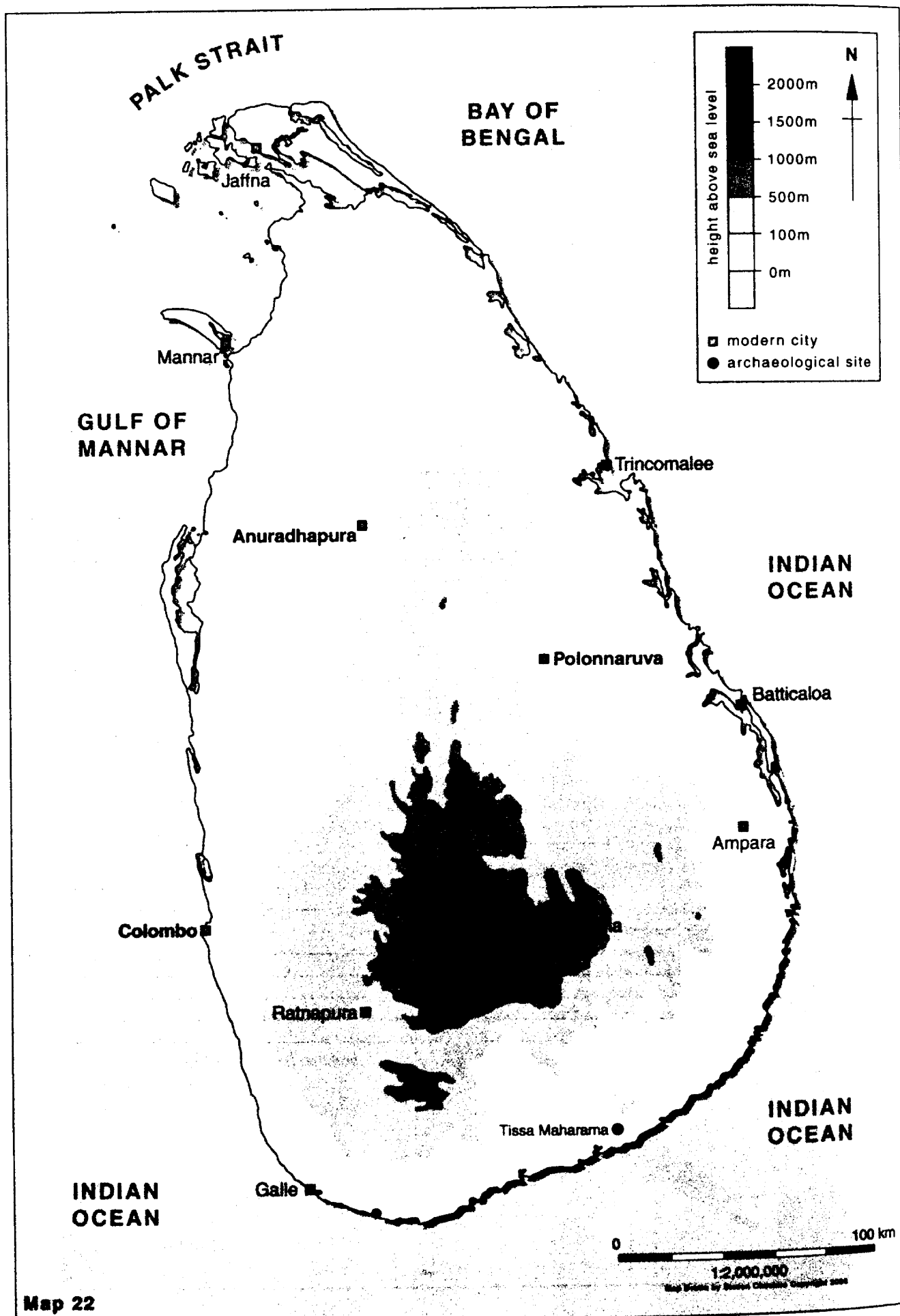


Table 11.1 Human remains

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Cranial	<i>number</i>		9	35					1		45
	<i>weight (g)</i>		70	263					7		340
Mandible	<i>number</i>		2	1							3
	<i>weight (g)</i>		30	15							45
Teeth	<i>number</i>		7	8	9						24
	<i>weight (g)</i>		14	21	13						48
Humerus	<i>number</i>		1	1							2
	<i>weight (g)</i>		20	20							40
Ulna	<i>number</i>		2								2
	<i>weight (g)</i>		23								23
Radius	<i>number</i>		1								1
	<i>weight (g)</i>		12								12
Vertebra	<i>number</i>				1						1
	<i>weight (g)</i>				3						3
Femur	<i>number</i>			1							1
	<i>weight (g)</i>			20							20
Limb bone	<i>number</i>			1							1
	<i>weight (g)</i>			75							75
Tibia	<i>number</i>			15							15
	<i>weight (g)</i>			120							120
Metatarsus	<i>number</i>		1								1
	<i>weight (g)</i>		3								3
Phalanx	<i>number</i>				1	1					2
	<i>weight (g)</i>				3	5					8
Total	<i>number</i>		23	62	11	7			1		98
	<i>weight (g)</i>		172	534	19	5			7		737

CHAPTER 12

BOTANICAL REMAINS

Ruth Young and Robin Coningham

12.1 Introduction

Archaeobotany is now accepted as an integral part of modern excavation and analysis. Palaeoethnobotanical questions are often incorporated in the overall research design and, at the very least, on-site sampling for later laboratory analysis is generally routine. The importance of charred remains, particularly timber, for providing C^{14} dating of features and phases has also emphasized the usefulness of systematic collection of such material. The identification and interpretation of archaeological plant material can be used to develop an understanding of the subsistence base of the people occupying an area or site. When discussed in conjunction with the faunal remains, this can help build up detailed information about wild and domesticated or cultivated food sources. Depending on the nature of the material recovered, plant remains can also be used to help in the interpretation of archaeological contexts and features, such as food processing or preparing areas, midden areas, storage buildings, and it may be possible to address questions such as the nature of crop regimes, distribution and control of crops. Where the archaeology permits comparison from a range of temporal phases and it is possible to gain a comprehensive knowledge of modern vegetation, environmental reconstruction of the site area can be attempted to reach a better understanding of the exploitation and dynamics of the environment through time.

Within South Asian archaeology, archaeobotany has been recognized since the 1920s, but the introduction of flotation techniques in the 1970s has enabled a greater range and quantity of material to be recovered (Kajale 1991). Plant remains have been recovered from some 120 sites in South Asia, spanning the Mesolithic to Later Historical periods (ca. 10,500 BP–AD 1800) with a total of nearly 80 different species of edible plants being identified (*ibid.*: 157) (see Maps 23 and 24). Of these sites, where analysis has taken place, the vast majority have resulted in less than ten different species being identified. The most commonly found categories of plants are cereals (including rice), legumes, fruit, oilseed/fibre and other material (Weber 1991: 22–4). Given that in South Asia there have been more than 775 species of edible plants identified from over 95 families, this archaeological material cannot be considered as truly representative of the range of both wild and cultivated food plants that may have been utilized (Kajale 1991: 157). At ASW2, the edible plant macro-remains recovered and identified consist of rice, and possibly other cereal in the form of millet, fibres and wood.

Furthermore, the majority of archaeobotanical work in South Asia to date appears to have had a largely food-based orientation. Certainly, the summaries of analyses to date by Weber (1991) and Kajale (1991) deal almost entirely with plant food production and consumption. Ethnographic work (Coningham 1994b; Leach 1961) clearly shows, however, that plant materials are also employed for a whole range of non-food uses, including construction and fabric-making. Combining various palaeoethnobotanical analytical techniques can therefore be of use in learning more about overall agricultural activity and exploitation. Morrison (1993), for example, has used information from pollen diagrams and charcoal densities to assess changes in vegetation and try to determine whether these can be attributed to land clearance, agricultural intensification and other human activities. The importance of this to archaeology is great, as is demonstrated at ASW2. The rich archaeobotanical remains from ASW2 have been recovered by a variety of methods and cover a range of material (see Tables 12.1 and 12.2). Overall, there tends to be a concentration from the earlier structural phases (K–F), and the majority of material is wood-based, suggesting a predominantly structural or fuel-use origin. Only a very small proportion of the total assemblage comprised edible plant material, and analysis and identification of the remaining material has provided a number of challenges, not least because of the limited amount of comparative reference items readily available.

12.2 Areas of special interest

Given the large amount and diverse nature of the archaeobotanical material recovered from ASW2, some degree of selection for examination was required. The majority of material recovered appeared to be wood charcoal, or wood preserved by other means, and the contexts associated with most of the material tended to be structural. This is important, as further examination could lead to a greater understanding of wood selection for construction purposes. Where the nature and the purpose of the structure are understood, variation in wood type between different structures, or similarities, may be possible to detect. There are also a number of other contexts and features that suggested further examination and analyses of the recovered botanical remains could be of use in interpretation. These include the ovens or furnaces that have been excavated in several areas across the site. The earliest feature described as an oven or furnace occurs in structural level J3 (1341),

followed by one in J4 (1291). Phases I1 and I2 also have ovens and furnaces (1171, 1152, 1148; 1109, 1096). Classification and identification of the wood charcoal recovered from these contexts could help in further differentiating their function, i.e. oven or furnace. Ethnographic and historical accounts of iron-working or other craft activities are often quite specific in fuel choices for certain tasks, for a range of technological and cultural reasons. Similarly, the collection of fuel wood for domestic purposes is often governed by different, but equally important preferences (Childs and Killick 1993).

A stokehole was excavated in structural phase I2 (1111), and analysis of the botanical material recovered from related contexts would allow comparison with other features, both from this site and others in the region. Information regarding fuel selection and any changes in fuel use over time could be of great interest at a site such as Anuradhapura. In ASW2 there is a well dated stratigraphic and structural sequence, and this would allow any changes in the wood charcoal and other plant material associated with furnace, oven and stokehole fuelling to be tied into this sequence. Perceived changes could then be related to other environmental techniques, such as pollen analysis, to try to determine if forest clearance or other changes could be connected to these activities. During excavation of structural phase H3, a number of burnt pits were uncovered (734, 881). The purpose of these pits is not entirely clear, but the excavators suggest a possible cremation function. Classification and attempted identification of botanical material from these contexts would be useful as the material could be compared with that from other known cremation pits, if available, and perhaps help clarify their function. Also, given the taboos regarding burial activity within city walls (see section 11.4 above), this could add more fuel to the debate. However, investigation of this, or of any of the other contexts of interest, depends on the availability of suitable samples.

12.3 Archaeobotanical remains

In this section we present a summary of the archaeobotanical material recovered from ASW2, analytical methodology and identifications. This material consists of plant-impressed fired bricks and tiles, wood charcoal, wood and wood pseudomorphs, fibre, charred rice and flotation samples. A full listing of all the material and specific samples examined is included in each section. It is interesting to note that, although there were a possible six sources from which archaeobotanical remains could have been recovered, in only two cases were even five sources present (see Table 12.1). The majority of sources for each phase was limited to one or two. Only fired bricks and tiles from periods G, I and J were examined, as those from periods A, B and C, D & E were probably from mixed contexts and this particular technology was not used in the earliest occupation in period K. Wood charcoals proved the most accessible source, samples being available for all but two periods. Periods G, H and I proved the most fully represented, as wood, wood pseudomorphs, fibres and wood pseudomorphs related to iron objects were also preserved and recovered. Flotation was only carried out on samples

from periods A, B, C, D & E, F and G. Owing to the very poor success rate of recovery – only two possible archaeobotanical identifications from many cubic metres of soil – we decided not to subject samples from period H, I, J and K to flotation.

12.3.1 Plant-impressed fired bricks and tiles

A total of 22 fired bricks were available for analysis at Bradford. These bricks are a deep orange in colour and have a very fine, powdery texture. They were recovered by hand excavation from a range of contexts, the majority of which were interpreted as old land surfaces and building collapse. In addition, one was recovered from the fill of a pit and one from the fill of an oven (contexts 1403 and 1153). The surface of all the bricks showed grain or seed, or possible husk impressions, or siliceous plant remains when examined under a low-powered stereomicroscope. All those that could be identified by their gross morphological features were attributed to *Oryza cf. sativa* Linn. (domesticated rice), although there were many incomplete and indistinct impressions that could not be identified. In order to obtain casts of these impressions, and thus achieve 'positives' of the grain features and allow examination and recording in a scanning electron microscope (SEM), a mixture of Dow Corning silicon rubber silastic (3110 RTV = 20 ml) and Dow Corning catalyst (1 RTV = 2 ml) was applied to a selection of the bricks. However, owing to the very crumbly texture of the material, it adhered in some quantity to the silicon casts when removal was attempted. This may be due to the original firing of the material, and controlled firing of the bricks may solidify them sufficiently to allow casting. Further work is currently being carried out to determine whether this is a practical and effective solution.

Mukund Kajale of the Archaeology Department at Deccan College, Pune, examined eleven pieces of brick and tiles that had charred and siliceous plant remains or impressions evident. Where identification was possible, all the plant remains have been attributed to *Oryza sativa* Linn., with the exception of one piece which had impressions Kajale described as granules that may be millet or another cereal, but this was not confirmed (Z1049). A total of 26 pieces of tile were also available for examination in Bradford. These pieces were of a grey-brown colour and smoother than the bricks, but also powdery in texture. Seed or grain impressions or siliceous plant remains were evident in seven of these pieces when they were examined under a low-powered microscope. Where complete and clear enough, these were also attributed to *Oryza cf. sativa* Linn. on the basis of their gross morphological diagnostic features. The presence of the rice grains and husks in the fired bricks and tiles may be the result of this material being used as a temper in the clay, as has been observed in many ethnographic accounts, or it may be the result of the mud having itself been collected from an area where rice was threshed.

Since the material identified all appears to be domesticated rice, it is likely that it was grown under irrigated conditions, which may have served also to provide a source of clay for construction materials

(Vishnu-Mittre 1979: 291). The following identifications and comments were made by Mukund Kajale (MK), Deccan College, Pune, and Ruth Young (RLY),

Sample No: Z1001 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 94.2 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1002 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 70.4 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1003 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 150.2 g
Identification and Comments: Grain impressions; *Oryza cf. sativa* - brick

Sample No: Z1004 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 76.2 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1005 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 13.0 g
Identification and Comments: Grain impressions, indefinite - brick

Sample No: Z1006 Context: 670
Examined by: RLY
Stratigraphic Phase: LXIV Weight: 138.8 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1007 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 354.9 g
Identification and Comments: Grain impressions; *Oryza cf. sativa* - brick

Sample No: Z1008 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 1390.8 g
Identification and Comments: Grain impressions, indefinite - brick

Sample No: Z1009 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 454.8 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1010 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 242.8 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1011 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 414.2 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1012 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 100.0 g
Identification and Comments: Grain impressions, indefinite - brick

Sample No: Z1013 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 89.1g

University of Bradford. Mukund Kajale stresses his identification work is preliminary only (pers. comm.).

Identification and Comments: Grain impressions; *Oryza cf. sativa* - brick

Sample No: Z1014 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 26.7g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1015 Context: 701
Examined by: RLY
Stratigraphic Phase: XCVIII Weight: 89.1g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1016 Context: 487
Examined by: RLY
Stratigraphic Phase: LXXXI Weight: 94.6g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1017 Context: 487
Examined by: RLY
Stratigraphic Phase: LXXXI Weight: 120.8g
Identification and Comments: Grain impressions; *Oryza cf. sativa* - tile

Sample No: Z1018 Context: 487
Examined by: RLY
Stratigraphic Phase: LXXXI Weight: 30.8g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1019 Context: 487
Examined by: RLY
Stratigraphic Phase: LXXXI Weight: 80.0g
Identification and Comments: No visible impressions or siliceous material - tile

Sample No: Z1020 Context: 487
Examined by: RLY
Stratigraphic Phase: LXXXI Weight: 40.5g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1021 Context: 880
Examined by: RLY
Stratigraphic Phase: XXXIII Weight: 140.0g
Identification and Comments: No impressions or siliceous material visible - tile

Sample No: Z1022 Context: 880
Examined by: RLY
Stratigraphic Phase: XXXIII Weight: 96.9 g
Identification and Comments: Grain impressions and white siliceous material; *Oryza cf. sativa* - brick

Sample No: Z1023 Context: 880
Examined by: RLY
Stratigraphic Phase: XXXIII Weight: 156.2 g
Identification and Comments: Grain impressions; *Oryza cf. sativa* - tile

Sample No: Z1024 Context: 880
Examined by: RLY
Stratigraphic Phase: XXXIII Weight: 99.9 g
Identification and Comments: Grain impressions, indefinite - brick

Sample No: Z1025 Context: 880
Examined by: RLY
Stratigraphic Phase: XXXIII Weight: 61.3 g
Identification and Comments: No impressions or siliceous material visible - tile

Sample No: **Z1026** Context: **880**
 Examined by: RLY
 Stratigraphic Phase: XXXIII Weight: **31.3 g**
 Identification and Comments: **Grain impressions and white siliceous material; *Oryza cf. sativa* - brick**

Sample No: **Z1027** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **46.4 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1028** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **67.1 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1029** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **37.6 g**
 Identification and Comments: **Grain impressions and siliceous material; *Oryza cf. sativa* - tile**

Sample No: **Z1030** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **35.2 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1031** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **50.9 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1032** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **70.6 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1033** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **70.6 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1034** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **35.4 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1035** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **70.6 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1036** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **22.2 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1037** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **36.2 g**
 Identification and Comments: **Grain impressions and siliceous material; *Oryza cf. sativa* - tile**

Sample No: **Z1038** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **43.9 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1039** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **53.0 g**
 Identification and Comments: **Grain impressions; *Oryza cf. sativa* - tile**

Sample No: **Z1040** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **20.0 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1041** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **33.3 g**
 Identification and Comments: **Grain impressions; *Oryza cf. sativa* - tile**

Sample No: **Z1042** Context: **905**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **34.6 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1043** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **94.6 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1044** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **80.5 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1045** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXXII Weight: **61.4 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1046** Context: **977**
 Examined by: RLY
 Stratigraphic Phase: XXVIII Weight: **47.6 g**
 Identification and Comments: **Grain impressions; *Oryza cf. sativa* - tile**

Sample No: **Z1047** Context: **1206**
 Examined by: RLY
 Stratigraphic Phase: XXXV Weight: **105.9 g**
 Identification and Comments: **No impressions or siliceous material visible - tile**

Sample No: **Z1048** Context: **399**
 Examined by: RLY
 Stratigraphic Phase: XCI Weight: **110.0 g**
 Identification and Comments: **Grain impressions and siliceous material; *Oryza cf. sativa* - brick**

Sample No: **Z1049** Context: **404**
 Examined by: MK
 Stratigraphic Phase: XCI
 Identification and Comments: **Rice husk, whitish silica husk (*Oryza sativa* Linn.), a few impressions of granules, but cannot be taken as those of millet**

Sample No: **Z1050** Context: **469**
 Examined by: MK
 Stratigraphic Phase: LXXXI
 Identification and Comments: **Uncarbonised husk impressions, whitish remains of rice husk**

Sample No: **Z1051** Context: **601**
 Examined by: MK
 Stratigraphic Phase: LXXII
 Identification and Comments: **Whitish specks of rice husk**

Sample No: **Z1052** Context: **615**
 Examined by: MK
 Stratigraphic Phase: **LXVII**
 Identification and Comments: **Uncarbonised husk impressions, whitish remains**

Sample No: **Z1053** Context: **961**
 Examined by: MK
 Stratigraphic Phase: **XXX**
 Identification and Comments: **More levigated clay and hence hardly any impressions of rice husk retained**

Sample No: **Z1054** Context: **1101**
 Examined by: MK
 Stratigraphic Phase: **XXVI**
 Identification and Comments: **Hardly any impressions**

Sample No: **Z1055** Context: **1153**
 Examined by: MK
 Stratigraphic Phase: **XXIV**
 Identification and Comments: **Hardly any impressions**

Sample No: **Z1056** Context: **1172**
 Examined by: MK
 Stratigraphic Phase: **XXII**
 Identification and Comments: **Two tiles with a few impressions**

Sample No: **Z1057** Context: **1175**
 Examined by: MK
 Stratigraphic Phase: **XVII**
 Identification and Comments: **Well levigated clay, few impressions**

Sample No: **Z1058** Context: **1403**
 Examined by: MK
 Stratigraphic Phase: **XVII**
 Identification and Comments: **Fine clay, hardly any impressions**

12.3.2 Wood charcoal

Large quantities of well-preserved wood charcoal were recovered from a wide range of contexts across the site. With the exception of the charcoal present in the flotation samples, it was all excavated by hand, and many of the larger pieces were originally selected for C¹⁴ analysis. The wood charcoal is mainly from contexts associated with structural episodes, such as slot and posthole fills, pillar supports, building collapse and old land surfaces. There is also a considerable amount from oven fills and pot contents. Given that the majority of archaeobotanical samples from ASW2 consist of wood charcoal in fragments of varying size, the identification and interpretation of this material are very important to the archaeobotanical analysis of the site. Selection of contexts for further examination was based upon availability of material and an attempt to cover a range of features and periods within this material. The samples were then placed on a 2 mm sieve and, of those pieces retained, a minimum of 30 per context were examined. Preparation of fragments for examination followed the general procedure of splitting each piece into three planes: transverse (TS), longitudinal tangential (TLS) and radial tangential (RLS) (Leney and Casteel 1975).

Examination of each specimen was then carried out using a high-powered incident light microscope and,

where possible, an SEM. Characteristic diagnostic anatomical features from each section were noted and described (Barefoot and Hankins 1982; Western 1969). Use of a standard key is recommended and, when a realistic selection of possible types is made, archaeological specimens can be compared to known reference specimens (Ilic 1991). As no comprehensive reference collection is currently held at Bradford, final identification was limited. However, the material examined and described could be grouped together in types in the absence of positive identification, which allowed useful comparisons to be made. The increasing awareness of the suitability of dendrochronology as a dating method in South Asia has resulted in research into modern and archaeological woods and their identification. Published examples of SEM photomicrographs, such as those by Grant (1992), and discussions of diagnostic anatomical features in relation to dendrochronology are very useful in assisting in the classification and identification of wood charcoal.

In Bradford, the wood charcoal from six contexts was examined and classification and identification were attempted:

Sample	Context	Stratigraphy/Interpretation	Identification
Z507	1112	stokehole fill	I2 <i>Syzygium</i> sp./? <i>Vitex</i> sp. (<i>altissima</i> ?)
Z563	1342	oven fill	J3 Type 1
Z307	723	trough fill	H1 Types 1 and 2
Z966	438	posthole fill	G5 <i>Alseodaphne</i> sp./? <i>Syzygium</i> sp.?
Z372	812	slot fill	I7 <i>Alseodaphne</i> sp./Type 2
Z29	358	pillar support	F <i>Vitex</i> sp./Type 1

Wood charcoal was submitted to the British Museum, London, for dating purposes and three samples were

examined by Caroline Cartwright, Environmental Archaeologist. Identifications were obtained as follows:

Sample	Context	Stratigraphy/Interpretation	Identification
Z471	914	destruction layer	I4 <i>Lumnitzera racemosa</i>
Z538	1173	furnace/oven fill	I <i>Syzygium/Lumnitzera racemosa</i>
Z359	735	burnt pit fill	H <i>Lumnitzera racemosa/Syzygium</i>

Both *Syzygium* and *Lumnitzera racemosa* are roundwoods (C. Cartwright, pers. comm.). No further details regarding sample size or methodology were available.

The identification of *Alseodaphne* and *Vitex* is to genus level only, with tentative suggestion of species for some samples of *Vitex altissima*. *Vitex altissima* is today used widely in construction work and cabinet-making from Pakistan to Sri Lanka (Mabberley 1987: 609). *Vitex* belongs to the Verbenaceae family, *Alseodaphne* to the Lauraceae family, and both have wide distribution in tropical and subtropical areas of the world. *Syzygium* is a member of the Myrtaceae family (subfamily Myrtoideae) and is also found in many tropical areas, species of which are used for timber (Halle *et al.* 1978). *Lumnitzera racemosa* belongs to the Combretaceae family, is a dominant in some mangrove swamps and can only tolerate brackish water (ibid.: 228; Edlin *et al.* 1978: 227). The structure of Type 1 classification resembles a roundwood and that of Type 2 a hardwood (Barefoot and Hankins 1982; Ilic 1991; Jane 1970).

The wood charcoal identification of a mixture of roundwoods and hardwoods, although with no great range of genus or species present, suggests that the occupants of ASW2 were able to select preferred wood types from the abundant forest resources available. Of the taxa identified, there is some possible overlap, at least at family level, with the present-day natural vegetation surrounding Anuradhapura (see Volume I, Chapter 2). This suggests that there may be continuity in forest composition, despite repeated clearance and regeneration known to have occurred before the general abandonment of this region in the eleventh century AD. The presence of *Lumnitzera racemosa*, a tree of mangrove areas, raises some interesting questions. As the closest mangrove habitats to Anuradhapura are over 60 miles away on the west coast, it may be hypothesized that the wood had

been brought to the city from coastal areas. Its presence at Anuradhapura raises questions about the qualities that made its selection, either conscious or unconscious, more desirable than other, perhaps more accessible and more available types. Mangrove species are very widely traded and used for building construction in East Africa, while in Southeast Asia the quality of charcoal produced from mangrove species is so good that it is traded internationally today (Thompson 1994: 24).

Further ethnographic work would be of interest in trying to understand what factors determine wood selection processes. By analysing the wood characteristics from a range of phases throughout the occupation history of the site, it is possible to suggest that wood selection changed little throughout this time. Even where identifications remain uncertain or have not been made, comparisons of the microstructure of the charcoal indicate that the range of wood present covers six main types: *Lumnitzera racemosa*, *Syzygium* sp., *Alseodaphne* sp., *Vitex* sp., Type 1 and Type 2. There is a further category of material which could not be identified or categorized owing to distortion of features. Roundwoods, in particular, present difficulties in distinguishing diagnostic microfeatures (Jane 1970). It is sometimes possible to suggest, on the basis of the identifications and classifications of types, a differentiation in the use of the wood. The charcoal associated with structural features such as posthole fills, slot fills and pillars may be quite different from that associated with features such as troughs, ovens and pit fills. However, at ASW2 there seems to be a mixture of uses for species both within and between contexts. The following identifications and comments were made by Caroline Cartwright (CC), British Museum, London (pers. comm.), and Ruth Young (RLY), University of Bradford.

Sample No: Z20 Context: 358
Stratigraphic Phase: XCIII Weight: 53.6 g

Sample No: Z23 Context: 355
Stratigraphic Phase: XCIII Weight: 34.6 g

Sample No: Z29 Context: 358
Examined by: RLY
Stratigraphic Phase: XCIII Weight: 64.7 g
Identification and Comments: 9 pieces attributed to *Vitex* sp., 10 pieces attributed to Classification Type 1, 12 pieces unidentified

Sample No: Z31 Context: 25
Stratigraphic Phase: XCVII Weight: 16.8 g

Sample No: Z36 Context: 364
Stratigraphic Phase: XCII Weight: 42.4 g

Sample No: Z59 Context: 15
Stratigraphic Phase: CXI Weight: 41.3 g

Sample No: Z228 Context: 381
Stratigraphic Phase: LXXXIX Weight: 149.8 g

Sample No: Z229 Context: 383
Stratigraphic Phase: LXXXIX Weight: 64.7 g
Wood charcoal (excluding soil matrix)

Sample No: Z82 Context: 435
Stratigraphic Phase: LXXXVII Weight: 42.3 g

Sample No: Z307 Context: 723
Examined by: RLY
Stratigraphic Phase: LXIII Weight: 95.2 g
Identification and Comments: 8 pieces attributed to Classification Type 1, 10 pieces attributed to Classification Type 2, 13 pieces unidentified

Sample No: Z337 Context: 615
Stratigraphic Phase: LXVIII Weight: 17.1 g

Sample No: Z339 Context: 601
Stratigraphic Phase: LXXII Weight: 13.5 g

Sample No: Z342 Context: 663
Stratigraphic Phase: LXVI Weight: 4.1 g

Sample No: Z356 Context: 603
Stratigraphic Phase: LXVIII Weight: 10.8 g

Sample No: Z361 Context: 729
Stratigraphic Phase: LII Weight: 24.9 g

Sample No: Z367 Context: 831
Stratigraphic Phase: XXXIX Weight: 162.6 g

Sample No: Z371 Context: 728
Stratigraphic Phase: LIV Weight: 64.7 g

Sample No: Z372 Context: 812
 Examined by: RLY
 Stratigraphic Phase: XLIV Weight: 33.1 g
 Identification and Comments: 11 pieces attributed to *Alseodaphne* sp., 7 pieces attributed to *Classification* Type 2, 13 pieces unidentified

Sample No: Z378 Context: 901
 Stratigraphic Phase: XXXIV Weight: 39.8 g

Sample No: Z379 Context: 880
 Stratigraphic Phase: XXXIII Weight: 70.1 g

Sample No: Z385 Context: 856
 Stratigraphic Phase: XXXVIII Weight: 46.2 g

Sample No: Z392 Context: 905
 Stratigraphic Phase: XXXII Weight: 43.6 g

Sample No: Z470 Context: 914
 Stratigraphic Phase: XXXII Weight: 35.5 g

Sample No: Z471 Context: 914
 Examined by: CC
 Stratigraphic Phase: XXXII
 Identification and Comments: *Lumnitzera racemosa*

Sample No: Z507 Context: 1112
 Examined by: RLY
 Stratigraphic Phase: XXVII Weight: 40.8 g
 Identification and Comments: 12 pieces attributed to *Vitex* sp., 10 pieces attributed to *Sygium* sp., 8 pieces unidentified

Sample No: Z533 Context: 1143
 Stratigraphic Phase: XXVII Weight: 116.3 g

Sample No: Z536 Context: 1195
 Stratigraphic Phase: XXI Weight: 15.6 g

Sample No: Z538 Context: 1173
 Examined by: CC
 Stratigraphic Phase: XXIV
 Identification and Comments: *Lumnitzera racemosa*, *Sygium*

Sample No: Z559 Context: 735
 Examined by: CC
 Stratigraphic Phase: LXV
 Identification and Comments: *Lumnitzera racemosa*, *Sygium*

Sample No: Z563 Context: 1342
 Examined by: RLY
 Stratigraphic Phase: XVII Weight: 37.5 g
 Identification and Comments: 15 pieces attributed to *Classification* Type 1, 25 pieces unidentified

Sample No: Z584 Context: 1491
 Stratigraphic Phase: XV Weight: 30.7 g

Sample No: Z585 Context: 1496
 Stratigraphic Phase: XII Weight: 56.7 g

Sample No: Z604 Context: 1714
 Stratigraphic Phase: VI Weight: 152.2 g

Sample No: Z605 Context: 1616
 Stratigraphic Phase: VIII Weight: 32.5 g

Sample No: Z606 Context: 1854
 Stratigraphic Phase: LXX Weight: 58.0 g

Sample No: Z608 Context: 1714
 Stratigraphic Phase: VI Weight: 151.1 g

Sample No: Z966 Context: 438
 Examined by: RLY
 Stratigraphic Phase: LXXXVII Weight: 73.6 g
 Identification and Comments: 11 pieces attributed to *Alseodaphne* sp., 6 pieces attributed to *Sygium* sp., 13 pieces unidentified

12.3.3 Wood and wood pseudomorphs

Large quantities of desiccated or otherwise uncharred, preserved pieces of wood and what have been described as wood pseudomorphs have been recovered from a range of contexts in several areas across the site, mainly from structural phase I. With the exception of two samples, which are from pits, the samples are from foundations or old land surfaces. Finds of uncharred wood are important as they offer an opportunity to examine the microstructure of material that has not been distorted by the charring process (Pearsall 1989). Their identification would also be of importance for interpretation in conjunction with the wood charcoal from similar contexts. A preliminary examination of samples from each of the contexts represented was carried out using a high-powered incident light microscope and in an SEM. However, the material was

very fragile and poorly preserved, and recognition of diagnostic features in the wood microstructure was limited. For samples where diagnostic features could be discerned, it was not possible to obtain satisfactory sections from all three planes of the wood (TS, TLS, RLS) and so classification or identification could not be attempted. One sample, Z522 from context 1101, an old land surface, could possibly be bamboo. This is suggested by the overall shape and size of the intact section of wood, but the degradation of the sample meant that closer examination was unable to discern microscopic features. Bamboo is widely used for construction purposes today in Sri Lanka, in many cases in place of metal scaffolding poles. The following identifications and comments were made by Ruth Young (RLY), University of Bradford:

Sample No: Z508 Context: 1101
 Examined by: RLY
 Stratigraphic Phase: XXVI Weight: 0.4 g
 No. of fragments: 4

Sample No: Z509 Context: 1101
 Examined by: RLY
 Stratigraphic Phase: XXVI Weight: 98.8 g
 No. of fragments: 2

Sample No: Z511 Context: 834
 Examined by: RLY
 Stratigraphic Phase: XXXVII Weight: 70.9 g
 No. of fragments: 10

Sample No: Z512 Context: 1101
 Examined by: RLY
 Stratigraphic Phase: XXVI Weight: 15.0 g
 No. of fragments: 4

Sample No: Z513 Context: 1101
 Examined by: RLY
 Stratigraphic Phase: XXVI Weight: 1.8 g
 No. of fragments: 5

Sample No: Z514 Context: 1101
 Examined by: RLY
 Stratigraphic Phase: XXVI Weight: 4.5 g
 No. of fragments: 2

Sample No: Z515 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 4	Context: 1101 Weight: 17.9 g	Stratigraphic Phase: XXXV No. of fragments: 1	Weight: 14.4 g
Sample No: Z516 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 7	Context: 1101 Weight: 778.2 g	Sample No: Z530 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 4	Context: 837 Weight: 34.9 g
Sample No: Z521 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 1	Context: 837 Weight: 51.8 g	Sample No: Z532 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 1	Context: 837 Weight: 15.2 g
Sample No: Z522 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 1 Identification and Comments: Bamboo?	Context: 1101 Weight: 67.8 g	Sample No: Z533 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 1	Context: 837 Weight: 30.0 g
Sample No: Z525 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 6	Context: 1101 Weight: 17.8 g	Sample No: Z534 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 1	Context: 837 Weight: 75.2 g
Sample No: Z526 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 1	Context: 1101 Weight: 550.8 g	Sample No: Z536 Examined by: RLY Stratigraphic Phase: LXXIII No. of fragments: 1	Context: 638 Weight: 37.4 g
Sample No: Z527 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 1	Context: 1101 Weight: 929.5 g	Sample No: Z537 Examined by: RLY Stratigraphic Phase: LXXIII No. of fragments: 1	Context: 638 Weight: 50.0 g
Sample No: Z528 Examined by: RLY Stratigraphic Phase: XXVI No. of fragments: 2	Context: 1101 Weight: 162.7 g	Sample No: Z538 Examined by: RLY Stratigraphic Phase: LXXIII No. of fragments: 1	Context: 638 Weight: 159.8 g
Sample No: Z529 Examined by: RLY	Context: 837	Sample No: Z539 Examined by: RLY Stratigraphic Phase: XXXV No. of fragments: 1	Context: 837 Weight: 68.3 g

12.3.4 Wood pseudomorphs related to iron objects

Within the 72 iron rings or collars recovered from phases G, I and H (see section 8.2.13 above), material was observed that was thought to be wood pseudomorphs. As these items were quite separate from the other wood and wood pseudomorph material, they were treated as a distinct category. It was hoped that identification of the material as wood and, if possible, further identification of the type of wood would help in suggesting the function of the collars. A preliminary selection of the material from inside the collars was examined under a high-

powered incident light microscope (four samples in total). No morphological features could be adequately discerned, and examination in an SEM was planned. However, of the four samples, two were so fragile that they disintegrated while under vacuum prior to insertion in the SEM. The other four were examined, but the high degree of degradation meant that few or no micromorphological features remained to allow identification. Although disappointing, this was not an unexpected result given the nature of the material.

Special find no: 10013 Examined by: RLY Stratigraphic Phase: LXXII	Context: 601	Special find no: 10116 Examined by: RLY Stratigraphic Phase: LXX	Context: 616
Special find no: 16002 Examined by: RLY Stratigraphic Phase: LXXII	Context: 659	Special find no: 15077 Examined by: RLY Stratigraphic Phase: LXX	Context: 616

12.3.5 Fibre material

Several samples were taken of what appear to be highly degraded fibres, or possibly even textiles. Of these samples, two were from old land surfaces, one from a foundation area and one from a trough fill. The highly degraded nature of the fibre material greatly limited classification and identification work. Samples of all the possible fibre or textile material were examined under a

low-powered microscope, but little or no diagnostic features were discernible. One sample of fibre, Z1062, was in considerably better condition, and this was examined in an SEM. When compared to material collected during ethnographic research from the 1994 field season, this sample most closely resembled *Cocos nucifera*, coconut fibre, on the basis of overall

appearance and morphological features. As the comparative material is processed, this suggests that the archaeological sample is also processed fibre, however further work would be needed to confirm this. Given the widespread use of palm for a range of building and other purposes (Coningham 1994b), extending the reference collection of fresh and charred material would be useful, both for further identification and to help recognize similar material during excavation and sorting. Currently in Sri Lanka palm groves, and individual trees in kitchen gardens, are often valuable sources of coconuts, oil,

string and rope, roofing material, structural timbers and even an intoxicating drink, toddy, fermented from sap. *Kajan*, or palm roofing materials, are often transported many miles by bullock cart and sold in towns and villages. The appearance of *Cocos nucifera* in deposits dating to the third century BC seems to parallel its identification at Arikamedu (Kajale 1991: 177), suggesting an early locus of palm cultivation in this southern region. The following identifications and comments were made by Ruth Young (RLY), University of Bradford.

Sample No: Z1061 Context: 834
Examined by: RLY
Stratigraphic Phase: XXXVII Weight: 0.9 g
No. of fragments: 2

Sample No: Z1062 Context: 837
Examined by: RLY
Stratigraphic Phase: XXXV Weight: 24.2 g
No. of fragments: 2
Identification and Comments: Palm fibre, possibly coconut.

Sample No: Z1063 Context: 721
Examined by: RLY
Stratigraphic Phase: LXIII Weight: 373.9 g
No. of fragments: 1

Sample No: Z1064 Context: 977
Examined by: RLY
Stratigraphic Phase: XXVIII Weight: 15.9 g
No. of fragments: 2

12.3.6 Flotation samples

Flotation was carried out in the field during the 1990 season by Sarah Wild, using a modified Siraf Tank and a 1 mm sieve. The majority of samples were from clay/habitation floors, pit fills and vessels. Preliminary examination of the unsorted samples in the field, and later sorting in the laboratory, showed an almost entire lack of charred archaeological plant remains other than wood charcoal. A minimum of 2 g from each flotation sample has been sorted in the laboratory at Bradford,

with the exceptions of samples O, J and R, all less than 2 g in total, where the whole sample was sorted. This arbitrary amount, while recognized as low, was a compromise used to fit within time constraints and to ensure that all the samples were considered, albeit briefly. Very little other than wood charcoal was noted, however in three samples small single items were noted as follows:

Sample	Context	Stratigraphy/Interpretation	Identification
Z200	510	burnt deposit	G <i>Eleusine coracana</i> ? (finger millet)
J	15	clay/habitation floor	B unidentified grain – weed?
AG	42	clay/habitation floor	D distorted

In sample J, the flotation field log notes the presence of modern root in the sample, which suggests the possibility of mixing or contamination. In sample AG, many small animal bones are noted in the field log notes, but not as burnt. Very little can be made of this small selection of

charred seeds/grains resulting from flotation, however it should be remembered that absence from a sample does not necessarily indicate absence of use. The following identifications and comments were made by Sarah Wild (SW) and Ruth Young (RLY), University of Bradford.

Sample No: CF Context: 111
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 5.7 g

Sample No: BH Context: 132
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 3.5 g

Sample No: BE Context: 150
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 8.3 g

Sample No: DN Context: 325
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 18.1 g

Sample No: CK Context: 105
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 6.8 g

Sample No: CH Context: 20
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 6.3 g

Sample No: BR Context: 180
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCIII Weight: 4.6 g

Sample No: DM Context: 327
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCV Weight: 149.9 g

Sample No: O Context: 36
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCVI Weight: 1.8 g

Sample No: EL Context: 382
Examined by: RLY/SW (in field)
Stratigraphic Phase: LXXXIX Weight: 4.1 g

Sample No: S Context: 47
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCVI Weight: 3.4 g

Sample No: BA Context: 129
Examined by: RLY/SW (in field)
Stratigraphic Phase: XCVI Weight: 20.5 g

Sample No: **J** Context: **15**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **CXI** Weight: **1.5 g**
Identification and Comments: **Unidentified grain, weed?**

Sample No: **CJ** Context: **42**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCV** Weight: **11.2 g**

Sample No: **AB** Context: **74**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCIV** Weight: **8.2 g**

Sample No: **AC** Context: **79**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **CXVII** Weight: **24.8 g**

Sample No: **AM** Context: **73**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCIII** Weight: **3.1 g**

Sample No: **FG** Context: **427**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCI** Weight: **2.7 g**

Sample No: **EI** Context: **381**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **LXXXIX** Weight: **29.9 g**

Sample No: **K** Context: **15**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **CXI** Weight: **2.1 g**

Sample No: **R** Context: **44**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCV** Weight: **1.1 g**

Sample No: **V** Context: **49**
Examined by: RLY /SW (in field)
Stratigraphic Phase: **XCV** Weight: **7.9 g**

Sample No: **X** Context: **25**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCVII** Weight: **4.9 g**

Sample No: **EK** Context: **383**
Examined by: RLY /SW (in field)
Stratigraphic Phase: **LXXXIX** Weight: **17.4 g**

Sample No: **P** Context: **21**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCV** Weight: **6.2 g**

Sample No: **CG** Context: **51**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCIX** Weight: **3.9 g**

Sample No: **AG** Context: **42**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCV** Weight: **4.0 g**
Identification and Comments: **Distorted grain.**

Sample No: **Z200** Context: **510**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **LXXVI** Weight: **12.3 g**
Identification and Comments: **Finger millet.**

Sample No: **FC** Context: **410**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCV** Weight: **3.4 g**

Sample No: **FA** Context: **404**
Examined by: RLY/SW (in field)
Stratigraphic Phase: **XCI** Weight: **30.0 g**

12.3.7 Charred rice

The charred rice from ASW2 is in extremely good condition; it was recovered by hand excavation from two contexts, building collapse and an old land surface. The material is in the form of single grains and smaller amounts of 'clumped' charred grains and husks. No separate husks were included with the material, and no waste elements such as chaff or rice straw were present. The collection has been identified by Mukund Kajale, Pune, as *Oryza sativa* Linn. (domesticated rice), and variations in the shape and size of grains within each sample were noted. Rice is considered to provide the earliest evidence of summer cultivation in India (Wilcox 1992: 292) and its presence at ASW2 is in keeping with irrigation agriculture taking place here. In his summary of palaeoethnobotanical work in South Asia, Weber (1991: 26) says that:

Rice [. . .] usually occurred in the form of isolated finds and rarely in sites where large numbers and varieties of species were found. Rice is also most commonly associated with second millennium sites and in regions where summer cultivation is practised today.

ASW2 conforms to this general pattern, with little in the way of other edible taxa, and the rice finds occurring in the general contexts of collapse and old land surfaces. The following identifications and comments were made by Ruth Young (RLY), University of Bradford, and Mukund Kajale (MK), Deccan College, Pune. Mukund Kajale stresses his identification work is only preliminary.

Sample No: **Z388** Context: **914**
Examined by: RLY/MK
Stratigraphic Phase: **XXXII** Weight: **49.4 g**
Identification and Comments: **Grains and husks attributed to *Oryza sativa* Linn.**

Sample No: **Z471** Context: **914**
Examined by: RLY/MK
Stratigraphic Phase: **XXXII** Weight:
Identification and Comments: **Grains and husks attributed to *Oryza sativa* Linn.**

Sample No: **Z377** Context: **880**
Examined by: RLY/MK
Stratigraphic Phase: **XXXVIII** Weight: **18.2 g**
Identification and Comments: **Grains and husks; *Oryza sativa* Linn.**

12.4 Comparable sites and material

Although Sri Lanka is thought to have provided some of the earliest evidence for plant exploitation in South Asia (Deraniyagala 1992; Kajale 1991: 169), in a recent

survey of palaeobotanical remains from South Asia only three Sri Lankan sites were included in comparison with 121 sites on the mainland. While Kitulgala and

Batadomba-lena, cave sites with microlithic technology, have yielded remains of *Artocarpus* cf. *nobilis* Thw. (wild breadfruit) and *Musa* cf. *acuminata* Colla type and *Musa* cf. *balbisiana* Colla type (wild banana) dating to c. 10,500–8,000 BP (ibid.), archaeobotanical finds from the remaining site, Mantai, are listed as mediaeval (ibid.: 159). However, this gap in subsistence strategies is not as wide as it may seem at first, as a number of floral species have already been identified from previous excavations in Early Historic levels at the Citadel of Anuradhapura. In particular, Deraniyagala recorded finds of rice husk in daub and clay roof tiles from stratum 3A and seeds of *Coix lachryma jobi* from stratum 4A and 4B at his excavations at the Gedige site in 1969 (Deraniyagala 1972: 159; 1992: 357–8). In addition, Mantai's occupation appears to date from the Early Historic period until the eleventh century AD, closely paralleling much of Anuradhapura's later occupation.

Mantai's use as a parallel to the archaeobotanical finds from ASW2 is strengthened by its position as Anuradhapura's port. During the 1984 excavation season at Mantai, wet and dry sieving was carried out, resulting in the recovery of a wide range of both carbonized and uncarbonized samples of cereals, pulses, weeds, fruit and herbs (Kajale 1990). The earliest levels examined, dating from the later part of the Early Historic to the beginning of the Middle Historic, yielded mainly finds of rice, as did Middle Historic levels with the addition of gram (ibid.: 265). Early mediaeval deposits yielded the maximum number of plant species, including rice, domesticated rice, wheat (*Triticum* sp.), barley (*Hordeum vulgare*), sorghum (*Sorghum bicolor*) and Italian millet (*Setaria* sp and *Setaria* cf. *italica*), while the pulses included black gram (*Vigna mungo*) and green gram (*Vigna radiation* (ibid.)). Kajale also notes that finds of rice dominate in all periods, both in overall numbers and proportionately, which may be an indication of the primary role of rice in subsistence agriculture or a result of preservational factors. The presence of large amounts of pepper from early mediaeval levels was tentatively identified as representing evidence of imports from southern India (ibid.: 266). If this is the case, then it represents some of the first archaeobotanical evidence of pre-European contact spice trade. Kajale also commented that almost all of the plant macro-remains recovered were in very poor condition, with the exception of rice and some millet (ibid.: 265). It is interesting to note that, in comparison with Mantai, ASW2 has yielded a narrow range of edible plant remains, only rice and finger millet, but a far wider range of wood and wood-based remains. Kajale's study of Mantai is thus very useful in allowing us to fill some of the gaps that we may have in reconstructing subsistence patterns at Anuradhapura.

Another comparative site, in terms of date, is Arikamedu, which is situated on the Coromandel Coast (Wheeler 1946; Casal 1949). Apparently founded as a small village in the second century AD, this site, located beside a creek, appears to have expanded in order to play an important role in Graeco-Roman trade with South Asia (ibid.). Indeed, its imports of Mediterranean glass, metal and ceramics have been studied in great depth (Begley and De Puma 1991). The preservation of organic materials in the water-logged deposits dating to between

the first century BC and the first century AD has been quite spectacular, with numerous finds of wooden material and even rope. Four of the wooden samples were identifiable objects and included a toy boat, the leg of a stool or bed, a toggle (?) and a mallet with a broken handle (Wheeler 1946: 104). The numerous pieces of rope recovered were identified as having been constructed out of twisted coconut fibres. A coconut shell and fragments of palm shell were also recovered (ibid.). This type of rope – coir – manufactured out of coconut husk fibre is widely used today within Sri Lanka for structural purposes. Six specimens of wood and two fragments of fruit shells were subjected to identification by Chowdhury and Ghosh (ibid.). Although badly degraded, two of the wood specimens were identified as *Diospyros* and *Maba* sp., one as *Mimusops* sp. and one as *Heritiera* sp. *Diospyros* is chiefly found in South India and Sri Lanka and is widely used for inlay, turning and walking sticks; *Mimusops*, an evergreen, is chiefly found on the east and west coasts of peninsular India and is used for strong and durable items such as oil presses, ploughs, boats and in construction; while *Heritiera* is chiefly found on the west coast of South India and is mainly used for boat-building, agricultural tools, construction and fuel (ibid.: 108). The fruit shells were identified as coconut (*Cocos nucifera*) and palmyra (*Borassus flabellifer*).

12.5 Ethnographic studies

Myrdal (1990) recently emphasized the need for more ethnographic studies to be tied into interpreting archaeological fieldwork and analysing historic data. She has suggested that it should involve the examination of agricultural systems as a whole, including field systems, manuring, harvesting methods, threshing techniques and storage, as well as preparation and cooking (ibid.: 63). Recent ethnographic observations within the Sigiriya region to the southwest of Anuradhapura, for example, have now confirmed that hunting and the gathering of berries, tubers and wild plants are still widely practised among traditional, agriculturally based peasant communities. Swidden agriculture, or rather *chena*, is still also used in parts of this region and in a number of examples is combined with irrigation agriculture, depending on the rainfall patterns. Indeed, historical accounts of village subsistence in the dry zone of Sri Lanka include irrigated rice as the major crop, with swidden crops of sorghum, cotton and black and green gram (Bandaranayake et al. 1990). Moreover, Leach's work at Pul Eliya, also in the dry zone, suggests that this pattern of subsistence was the case even in the 1950s (Leach 1961). Here cultivated land was divided into three divisions: irrigated land for rice cultivation; house gardens with coconut trees, plaintains and areca palms; and *chena* or shifting cultivation, which is mainly used for millet, or *kurakkan*, but also for gingelly and mustard (ibid.: 52–63). Leach stresses the importance of the role of the latter, stating that in years where the rice crop has failed this tertiary zone of cultivation is an important standby (ibid.: 63).

While the recording and identification of botanical specimens are also very important, they are a small part

of the range of palaeoethnobotanical analysis, and should not be the only contribution of archaeobotany to site interpretation. Observation of local contemporary building work, for example, has also shown the importance of coconut fibre ropes in construction. Furthermore, house-building incorporates a wide range of organic material, including wooden posts, bamboo, clay, sticks, twine, soil, and weeds and grasses. The role of various palm species has been noted and lends support to the suggestion that some of the unidentified material associated with construction layers may be preserved palm fibre (see section 12.3.5 above) (Coningham 1994b). Other work by Leach has also indicated that the majority of buildings in the village of Pul Eliya were made with mud walls, wooden roof poles and thatched roofs. Rice straw and other material resulting from the threshing process were used in thatching (Leach 1961: 59, 263).

12.6 Absence of charred edible plant remains

With the exception of the charred rice grains and husks, little else has been recovered from ASW2 in the way of edible, charred plant macro-remains. Ethnographic, historical and comparative archaeological evidence from Mantai suggests that other cereals, such as millet and sorghum, and pulses were likely to have been grown and consumed in addition to rice at Anuradhapura during the periods that the site was occupied, however evidence for these has not been forthcoming. The role of gathered plant foods in addition to, or instead of, cultivated crops also needs to be considered, as this may influence the botanical assemblage. There is a range of possible reasons to account for this apparent absence of charred botanical remains, from site function to preservational factors. For example, if the excavations at ASW2 do not include an area of food preparation or consumption, then it follows that large quantities of seeds and grains will not be recovered. The presence of rice from two separate contexts suggests that food was present on the site at certain stages in these excavated areas, but this could be considered a chance find. The processing of cereals and pulses may not involve the use of heat and so reduces the possibility of accidental charring and thus their likelihood of preservation. This largely depends on whether the cereals grown are of the hulled or free-threshing variety (Hillman 1985). Ethnographic studies suggest that, in Sri Lanka, threshing takes place in general in the harvesting area, away from occupation areas (Leach 1961: 261–3). Again, this will reduce the likelihood of cereal waste entering the archaeological record, except when incorporated in building material, such as thatching, or when used as a temper in clay. While ethnographic work shows that rice and rice waste products are frequently included as construction material (see section 12.3.7 above), the far greater proportion of rice grains than husk recovered at ASW2 suggests that its presence here is probably not as building matter.

Plant foods such as tubers or leafy vegetables are much less likely to be preserved or recovered and identified than seeds and grains (Hather 1993). Therefore, if the diet of those occupying Anuradhapura had a large component of these types of plants, there is

unlikely to be a great deal of direct evidence for this in the archaeobotanical remains. The nature of organic carbon and the presence of large quantities of wood charcoal and rice at ASW2 suggest that post-depositional factors should not greatly affect charred plant remains here. Therefore, if plant foods are being prepared and consumed and being charred, their presence in the archaeological record could be expected. If plant remains continue to be sparse or absent from sites such as Anuradhapura, it may be necessary to incorporate sampling for plant micro-remains such as phytoliths or pollen to help gain direct information about the plant subsistence base. Sampling for this material is easily carried out in the field, although laboratory analysis is more specialized than for the majority of macro-remains (Pearsall 1989).

12.7 Conclusion

The archaeobotanical assemblage from ASW2, like that at Arikamedu, has a definite bias towards wood and wood-based remains. This is important for the information it has given about structural and fuel selection and use. The limited range of wood types present throughout the main structural phases analysed suggests that the resources available to the occupants of the site were extensive enough to allow use of preferred species. This needs to be backed up with more ethnographic work in the field, if possible, to reach a greater understanding of selection and preferences, both conscious and unconscious. The absence of almost all evidence for edible plant foods other than the charred rice finds suggests that food processing and preparation was not taking place in the areas excavated at ASW2. While the isolated finds of rice, but no other cereal, legume or fruit remains, fit in with the archaeobotanical pattern noted by Weber (1991: 26), the absence of rice waste within the rice finds themselves indicates that processing was not occurring in the area where the rice was found. As there is a great deal of evidence – ethnographic, historical and archaeological – to show that, while rice cultivated under irrigation may have been the primary cereal crop, there was a wide range of edible plants in use in this region throughout this period, it is likely that the occupants of ASW2 were producing, or at least consuming, other types of plants. The general absence of remains from these plants does not necessarily mean that they were not present. The work of both Kajale (1990) and Weber (1991) shows that, where rice is found in any quantity, it is unlikely to be accompanied by large finds of other edible plant macro-remains. Although the cause of this is unknown, Kajale's observation at Mantai that the rice was in a far better state of preservation than the majority of other charred plant remains may be worth pursuing (Kajale 1990: 265).

The rice impressions and siliceous remains in the mud bricks and tiles confirm the presence of rice at the site, indicating that it was widely produced. Further work to obtain casts of the impressions will not only help expand the methodological options available for work of this kind but also allow a more complete examination of the material, and perhaps enable some differentiation in type over the structural periods. The wood

pseudomorphs, both those related to the iron objects and those recovered from other parts of the site, are an important if frustrating source of information. Along with the wood charcoal, they constitute the greater part of the whole assemblage. Further analysis and identification of both bodies of material require a comprehensive reference collection. The concentration of South Asian archaeobotany to date on edible food plants also means that there is limited comparative material from other sites. The work being undertaken on wood for dendrochronology does help fill this gap a little, but it does not provide the interpretations needed for palaeoethnobotanical analysis. Work such as that by Morrison (1993), comparing pollen diagrams and charcoal densities from the site of Vijayanagara in India, makes use of the abundant wood charcoal but does not attempt classification or identification of types of wood present.

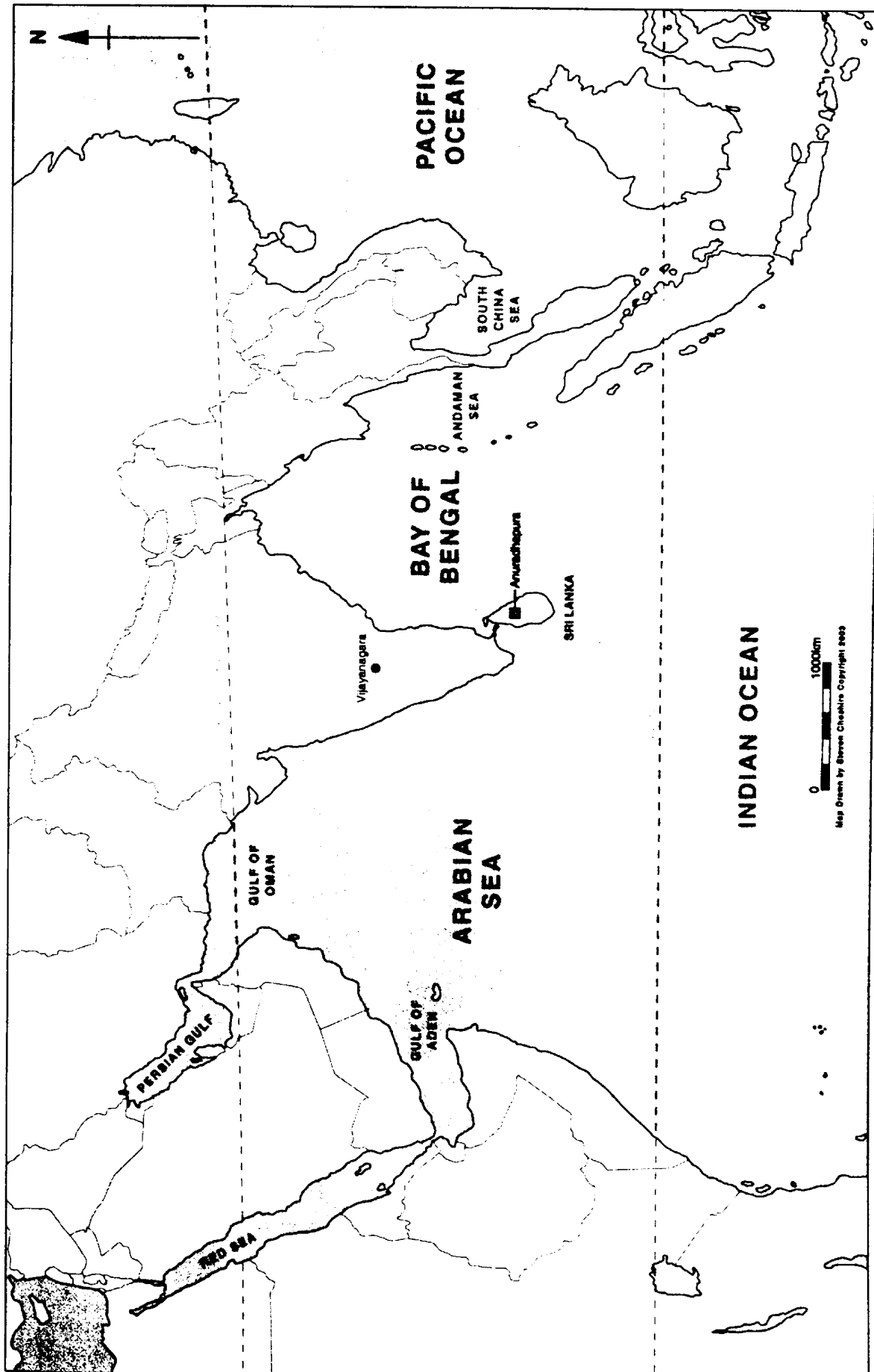
The attempted identification of wood charcoal from ASW2 has resulted in some interesting suggestions and conclusions. These relate mainly to the habitat surrounding the site, that it has remained relatively unchanged in terms of the forest cover, although periods of clearance and regeneration may have resulted in some diminution of species or possible extinction. The continuity observable in the archaeological and modern material, primarily seen in *Alseodaphne* and *Vitex*, where other members of both genus and family are recorded as present today, suggests that no major changes have occurred in terms of climate and soils. The presence of *Lumnitzera racemosa* in three of the contexts examined is extremely interesting, as it raises questions of possible trade and/or contact with coastal areas. When considered alongside aquatic faunal remains (see Chapter 10), there does seem to be a clear coastal link, although whether occupants of ASW2 were travelling to mangrove areas and selecting the material themselves, or whether they were receiving the choices of other communities, is not known. Similarly, the fibres and possible textiles from ASW2 suffer from a high degree of degradation and, when they are in a condition suitable for examination, noting their presence and likely identification is interesting; however, in such small quantities, this can add little to the sum total of information about the site. Overall, the charred material from ASW2, wood charcoal and rice, is in good condition and able to be classified and identified. The rest of the archaeobotanical assemblage, the wood and wood pseudomorphs and the fibres, are in a much poorer condition, and this makes classification and identification rare or impossible. The results from the charred material are encouraging and will hopefully indicate the importance of wood charcoal collection and analysis in its own right, rather than just as a means of obtaining material for C¹⁴ or dendrochronology dating purposes.

It is valuable, at this point, to compare the archaeobotanical evidence from ASW2 with previous interpretations of ancient farming practices within the Anuradhapura region. It is widely agreed that *chena*, or swidden agriculture, was the earliest form of farming in the dry zone (Siriweera 1990: 143). This practice involved the clearing of an area of forest by hand, the burning of the cut bush and then the sowing of seeds onto

the cleared area. It is possible to grow a variety of dry crops in such fields, including rice, cotton, sugarcane, sesame (*Sesum indicum*) and finger millet (*Eleusine coracana*). The latter, known also from inscriptions and references in classical Sinhalese literature, is recognized as an important substitute for rice (ibid.). According to Bandaranayake, this subsistence pattern altered from the third century BC onwards with an increasing concentration of settled villages 'basically engaged in wet-rice cultivation using the village tank system' (Bandaranayake 1992: 16–17). In comparison with the earlier shifting patterns of temporary land use, one may assume that it was much more labour-intensive as it necessitates human modification of the existing landscape in order to create both tank and field bunds. The adoption of tank-irrigated agriculture did not lead to an abandonment of the earlier *chena* system, indeed Bandaranayake stresses that it was practised, as today, in combination 'with other less advanced modes of subsistence' (ibid.). An important addition to the range of cereals and vegetables grown in this mixed system were the supplements such as betel, yams and tree crops grown in garden compounds (Siriweera 1990: 146).

The above model is clearly similar to that described by Leach in 1961, and this should be of no surprise as the model has been created from such anthropological studies. Although Leach only identified three main types of agricultural land use, irrigation agriculture, *chena* and compound gardens, more recent work by Tennakoon has suggested that the tripartite division may be further divisible into a total of five zones: the tank; the traditional paddy field; the new field systems; the parkland or abandoned *chena*; and finally the surrounding forest and *chena* area (Tennakoon 1974).

Although the archaeobotanical data recovered from ASW2 (see Table 12.2) neither refutes nor confirms the above model, a number of pertinent comments may be made. Firstly, it appears that rice (*Oryza* cf. *sativa* Linn.) was subjected to irrigation as early as structural period J, the fourth century BC. Indeed corroborative evidence can be found in the form of a change in the water table which had occurred at ASW2 by the succeeding period, I (see Volume I: 139), and also the increasing presence of terrapins at ASW2 (see section 10.3.3 above). Secondly, it appears that the earliest evidence of finger millet (*Eleusine coracana*) is rather later, during structural period G, in the first century BC. Its absence from earlier levels is presumably a result of taphonomic processes, however its presence in this phase with rice may suggest that both wet and dry agricultural systems were in operation. Thirdly, the presence of coconut (*Cocos nucifera*) in structural period I may suggest that the role of garden cultivation should not be overlooked. Incidentally, the presence of this specimen in deposits dating to the third century BC makes this the earliest archaeological find of the species in South Asia. The presence of the above species on the site does not, of course, suggest that they were all grown close to the site. Indeed the presence of *Lumnitzera racemosa* – a species only found in the Mannar–Puttalam coastal belt of Sri Lanka – in period I should make us aware of the complexities of trade and exchange of woods, as well as foodstuffs.



Map 23

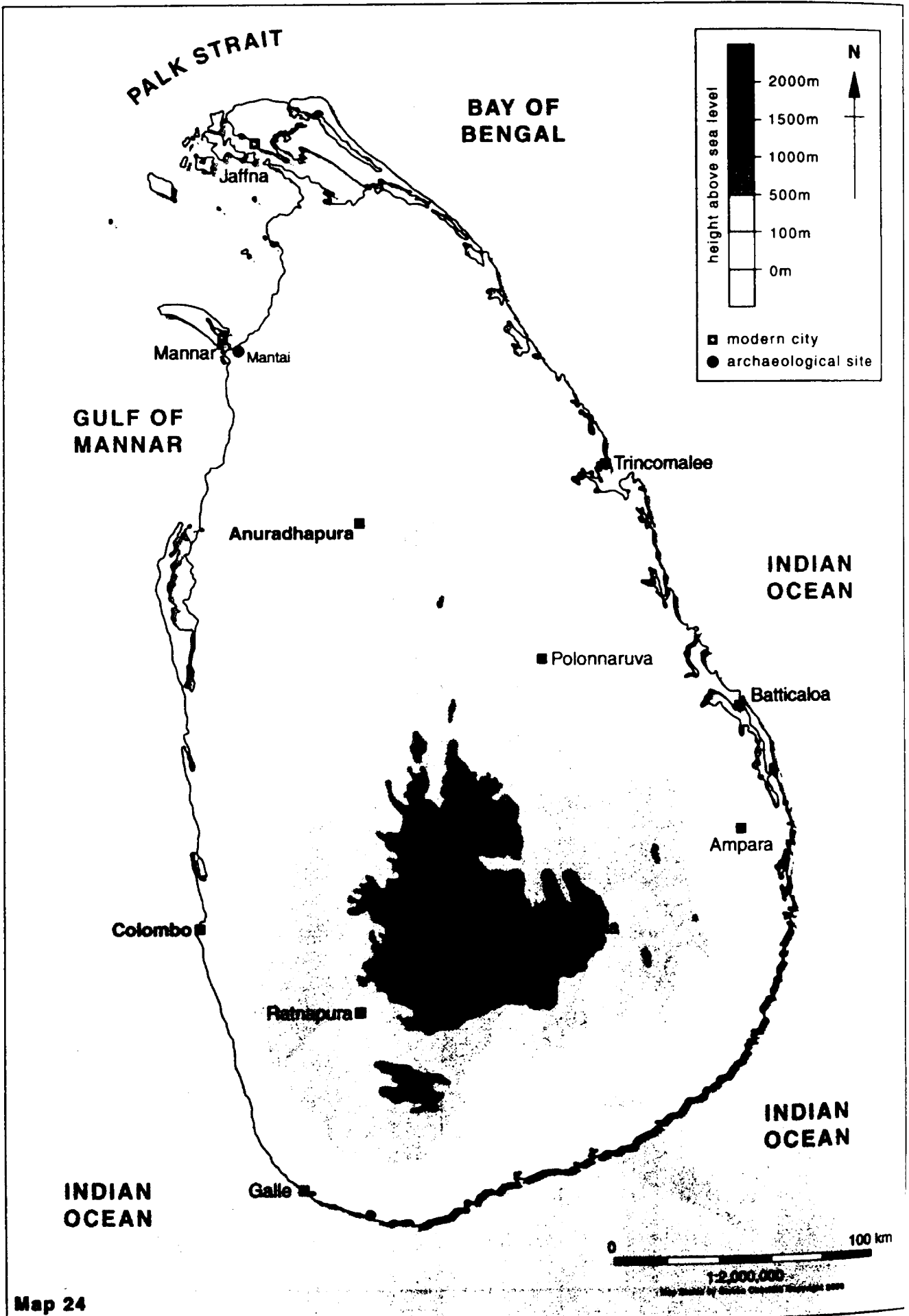


Table 12.1 Archaeobotanical remains
(X denotes present or recovered)

Category	Period	A	B	C,D & E	F	G	H	I	J	K	Total
Brick & tile						X		X	X		3
Wood charcoal			X		X	X	X	X	X	X	7
Wood & pseudomorph						X		X			2
Fibre							X	X			2
Wood pseudomorph related to iron objects						X	X	X			3
Flotation samples		X	X	X	X	X					5
Total		1	2	1	2	5	3	5	2	1	22

Table 12.2 Archaeobotanical species
(X denotes present or recovered)

Category	Period	A	B	C, D & E	F	G	H	I	J	K	Total
Syzgium						X	X	X			3
Alseodaphne						X		X			2
Vitex						X		X			2
Lumnitzera racemosa								X			1
Type 1 (roundwood)					X		X		X		3
Type 2 (hardwood)							X	X			2
Cocos nucifera								X			1
Bamboo								X			1
Oryza sativa						X		X	X		3
Eleusine coracana						X					1
Unidentified grain-weed?			X								1
Total			1		1	5	3	8	2		20

CHAPTER 13

CONCLUSION: THE NATURE OF THE EARLY HISTORIC CITY

Robin Coningham

The aim of this, the final chapter of the two volumes of excavations at trench ASW2, Anuradhapura, is to evaluate our understanding of the nature of the Early Historic city in South Asia. Indeed, the excavations at Anuradhapura, both those carried out by the British-Sri Lankan team and those directed by Dr Siran Deraniyagala, have provided a unique view of the origins, morphology and development of one of South Asia's great cities. Unique, because the majority of Early Historic excavations have concentrated on merely identifying a chronological sequence via a small sondage cut into the cultural deposits of a large tell site. As a result, the data from Anuradhapura, and its interpretations, allow us to compare the archaeological evidence against an array of synthetic models and hypotheses. In so doing, we may begin to isolate and identify which of the models and hypotheses concur most closely with the evidence.

The chapter will begin, however, with an attempt to identify the definition of the Early Historic city so that we may look for the development and genesis of the relevant traits. As discussed in a book chapter in 1995 (Coningham 1995a), there are a number of differing definitions for the South Asian city of the Early Historic period. These definitions, however, differ only to a very small degree and are all based upon Gordon Childe's list of ten urbanized criteria, these being size, additional classes, centralized surplus, monumental public buildings, ruling class, recording and administration, predictive sciences, conceptualized styles of art, long-distance trade, and social organization based on residence rather than kinship (Childe 1950: 15). Thus, while Allchin acknowledges the need for all of these criteria with the addition of a new settlement tier and an ideology (1990: 164), Joshi has stressed the role of monetary exchange and coinage as a further necessary trait (1973: 36) and Chakrabarti the presence of a fortified settlement (1973: 88). Jim Shaffer has added the need for an economy integrating agriculturalists and pastoralists, the use of stone, mud and fired bricks, as well as the development of public and private hydraulic features (1993: 59). One may therefore put forward the following ten criteria as being representative of the nature of the Early Historic city, as already proposed in 1995. These consist of a large settlement with a degree of internal planning and public architecture at the top of a settlement hierarchy and encircled by defences. Its inhabitants should have access to a script, craft

specialization, long-distance trade and a subsistence strategy capable of raising the carrying capacity of the surrounding area in order to support the increasing population (Coningham 1995a: 56-7). It may be interesting to note that a number of scholars have accepted this rejuvenation of Childe's list with little change (Bogucki 1999: 333).

In comparison with the criteria for the Early Historic city, it is also necessary to look at the nature of the communities which preceded it in South Asia, and in Sri Lanka and the southern half of peninsular India in particular (see Map 25). These communities are widely recognized as falling within the label or tradition of the 'megalithic' Iron Age, and a number of scholars have recognized strong links within the material culture of such communities divided mainly by the geographical factor of the Palk Straits (Seneviratne 1984: 283). With the exception that the archaeology of Sri Lanka has no Neolithic or Chalcolithic stage, its later prehistory is generally paralleled with that of southern India. The quality of the available data is, however, superior within Sri Lanka on account of the widespread use of radiocarbon dates utilized by the Archaeological Survey of Sri Lanka, and at the site of Anuradhapura by Siran Deraniyagala in particular. Utilizing such chronometric evidence, Deraniyagala has suggested that the Iron Age of Sri Lanka starts with a distinctive proto-historic Iron Age, a period which he also terms the Early Iron Age. Attributing dates of between c. 900 and 600 BC to this period, he cites the use of iron technology, Black and Red-ware ceramics, the horse, domestic cattle and paddy cultivation (Deraniyagala 1992: 709). This period is characterized in more detail by Seneviratne, who believes that its communities inhabited small, sedentary settlements (1992: 101). Furthermore, he suggests that each settlement was associated with a group of megalithic tombs or cemeteries as well as fertile strips of agricultural land and small irrigation tanks. Depending heavily on swidden and plough-cultivated agriculture as well as pastoralism, these communities are perceived as having been self-sufficient. Seneviratne has also argued that craft specialization was limited to a household level of production, with general self-sufficiency. As already noted (Coningham 1999), the only communally built structures, megaliths, represented a very small investment of labour. It is calculated that the construction of a megalithic tomb only represents some 5,000 labour hours (*ibid.*: 128), so it is clear that little more investment

is required than that of a single extended family. Although the proposed criteria for the early Iron Age communities of Sri Lanka are less prescriptive, or indeed less clear, there is also the assumption that the Early Historic urban traits will be generally absent within the preceding period. In view of presentation of the criteria characterizing the Early Historic and preceding period, it is now possible to identify their presence or absence in our sequence from the city of Anuradhapura in order to identify at which date these criteria are actually recognizable. Moreover, it is also possible to identify the degree to which the change or transition from early Iron Age settlement to Early Historic city was one of continuity or dynamic change.

The first criterion thought to characterize the nature of the Early Historic city is the emergence of a large or pre-eminent fortified settlement at the top of a clear settlement hierarchy. This is a very general characteristic which most South Asian scholars have accepted, although none have suggested prescriptive populations or areas (Coningham 1995a). Similarly, the second criterion is also a universal one, though not all scholars require the presence of the third, a distinct site hierarchy, as proposed by Allchin (1990: 164). The earliest settlement at Anuradhapura, as discussed in Volume I, appears to date to between 840 and 460 cal. BC, at which time it is thought to have covered an area of some 18 hectares (Coningham 1999). During structural period J, between 510 and 430 cal. BC, the settlement expanded slightly to cover 26 hectares. It grew dramatically in size during structural period I, between 360 and 190 cal. BC, to cover 60 hectares within a new ditch and rampart enclosure of 100 hectares. Structural periods H and G, dating to between 200 BC and the latter half of the first century cal. AD, saw the settlement reach its maximum coverage before it went into decline during the later periods. In view of this evidence it is apparent that the settlement made its greatest expansion, an increase of over 200 per cent, in the first half of the fourth century BC during structural period I. It is also notable that, although the evidence is limited, it seems probable the southern defences were constructed during the same period (Coningham 1999). These defences, fulfilling another Early Historic criterion, are thought to have comprised a rough, cardinaly oriented square rampart and ditch – the form which has dictated the present topography of Anuradhapura's urbanized core, the Citadel. The differentiation in terms of changes within the settlement pattern or hierarchy is less clear, owing to the absence of reliable data. In particular, because they are more archaeologically visible, a larger number of megalithic sites have been identified than habitation areas sites – some 22 in total. In comparison, the only known Iron Age settlement sites are Anuradhapura in North Central Province and Kantarodai in the centre of the Jaffna Peninsula, but little has been published on the latter. A survey of the Jaffna Peninsula in the 1980s, conducted by P. Ragupathy from Jaffna University, was however extremely successful and identified 18 small sites, although it is unclear whether they are purely Iron Age or whether they also represent Early Historic occupation (Ragupathy 1987). This data, when combined with that from Anuradhapura, may suggest the presence

of a simple two-tier settlement hierarchy with a limited number of large centres and a hinterland of smaller communities. In comparison, the number of Early Historic sites is far greater, as illustrated just by the distribution of Early Brahmi inscriptions (Coningham 1995b). Although little is known about the actual settlement size differentiation, Anuradhapura stands at the apex of the hierarchy at 60 hectares, with at least two other tiers below. These lower-order settlements are represented by larger settlements such as Kantarodai and Mantai, the latter covering an area of some 48 hectares (Carswell and Prickett 1984: 44), and small rural settlements. For any further discussion we must await the development of settlement surveys in the hinterland.

Additional criteria include the presence of internal planning, public architecture, a script, craft specialization, long-distance trade and a subsistence strategy capable of raising the carrying capacity of the surrounding area in order to support the increasing population (Coningham 1995a: 56–7). The presence of internal planning is difficult to prove or disprove, mainly due to the limited spatial data, restricted by the size of the trenches excavated at Anuradhapura. The evidence for such an internal plan is suggested by the overall roughly square shape of the city's fortifications, if it may be assumed that once constructed during structural period I they remained on the same plan. This evidence, in combination with the clear cardinal planning of structures in the same phase, exemplified by structural phase I4, suggests the presence of a rigidly planned settlement. However, one should be aware that this feature might appear more demonstrable because the features are all straight-sided and make a cardinal orientation more apparent than circular structures would. The criterion of public architecture is more difficult to prove as the majority of early structures have been rebuilt or are encased within later additions (Coningham 1995a). In view of this difficulty it is proposed that the defences surrounding the settlement may also be deemed public or rather communal works. As already argued (*ibid.*), the differences between the monuments of the early Iron Age and the Early Historic period are illustrated by the consideration that construction of a simple megalithic tomb required some 5,000 labour hours. However, the first city wall at Anuradhapura needed 86,000 labour hours and the construction of the large stupas some two million labour hours. Clearly, such monuments could only be constructed with the full cooperation of the communities living within the urban form as well as those in its hinterland. Thus the criteria are again met during structural period I. Joshi's insistence on the importance of coinage (1973: 36) also appears supported, with the presence of a worn copper-alloy square object from the same period (see Chapter 2).

While the above features all stress the discontinuity posed by the transition between structural periods J and I, the remaining criteria present a very different pattern of change. The presence of a script, for example, has already been discussed previously (Coningham *et al.* 1996) and it should be reiterated that the earliest evidence of scriptural graffiti dates to structural period J (see Chapter 9). This evidence indicates that the use of writing certainly pre-dates the creation of the

fortifications around the city of Anuradhapura. Accepting the presence of a strong tradition of non-scriptural graffiti in the site's earlier periods, it is suggested that the introduction of the Early Brahmi script may have been in response to the needs of traders, prior to its use as an official or administrative tool. Indeed the role of trade, and the access of merchants and those engaged in craft manufacture to 'exotic' materials, appears well established prior to the erection of the wall and ditch. The evidence suggests that, as early as structural period J, the settlement at Anuradhapura had access to communities on the Sri Lankan coast, as supported by the find of a marine gastropod shell (see Chapter 10). Moreover, there is also clear evidence of access to communities beyond that coast, as illustrated by finds of carnelian beads (see Chapter 8). The sequence at Anuradhapura thus appears fully to reject the hypothesis mounted by Mortimer Wheeler that the origins of Indian Ocean trade rested upon the stimuli provided by the expansion of the Graeco-Roman economic system (1955: 152). Indeed, the contents of this volume demonstrate that such Western influences occurred centuries after maritime and terrestrial trading networks, both national and international, had been established within the region (Coningham, forthcoming). It should also be remembered that Shaffer has suggested that the development of public and private hydraulic features were an additional trait or criterion for urban status (Shaffer 1993: 59). In light of this suggestion, it should be noted that bones belonging to the Indian pond terrapin, *Melanochelys trijuga thermalis*, were recovered from structural period J (see Chapter 10). As this terrapin is usually found in slow-flowing or sedentary water bodies, its presence may suggest that such an environment was being artificially created in the vicinity of the settlement even prior to the first clear demonstration of the necessary technology. The latter is the simple bund or dam – technology demonstrated by the settlement's first communal construction, the city's rampart.

The final criteria are the presence, or absence, of craft specialization and a subsistence strategy capable of raising the carrying capacity of the surrounding area in order to support the increasing population (Coningham 1995a: 56–7). As indicated above, many of the models advanced for the Iron Age in Sri Lanka have assumed that craft specialization occurred as a household mode of production, while during the Early Historic period production became centralized. Furthermore, historians and archaeologists have assumed that such Early Historic craft specialization occurred within specific zones within urban forms – although often they refer to this specialization through the term 'caste' (Coningham 2000: 348). Such assumptions have failed to be realized at Anuradhapura utilizing a methodology based on Pracchia's earlier work (Pracchia *et al.* 1985). Indeed, by comparing the evidence for craft production at trench ASW2 with material from the other trenches within the city, it has been possible to map the spatial and temporal pattern of craft activities. It had been assumed that the earliest, Iron Age settlement would demonstrate a pattern of house production with evidence of craft activities being present at each of the trenches, each at a different

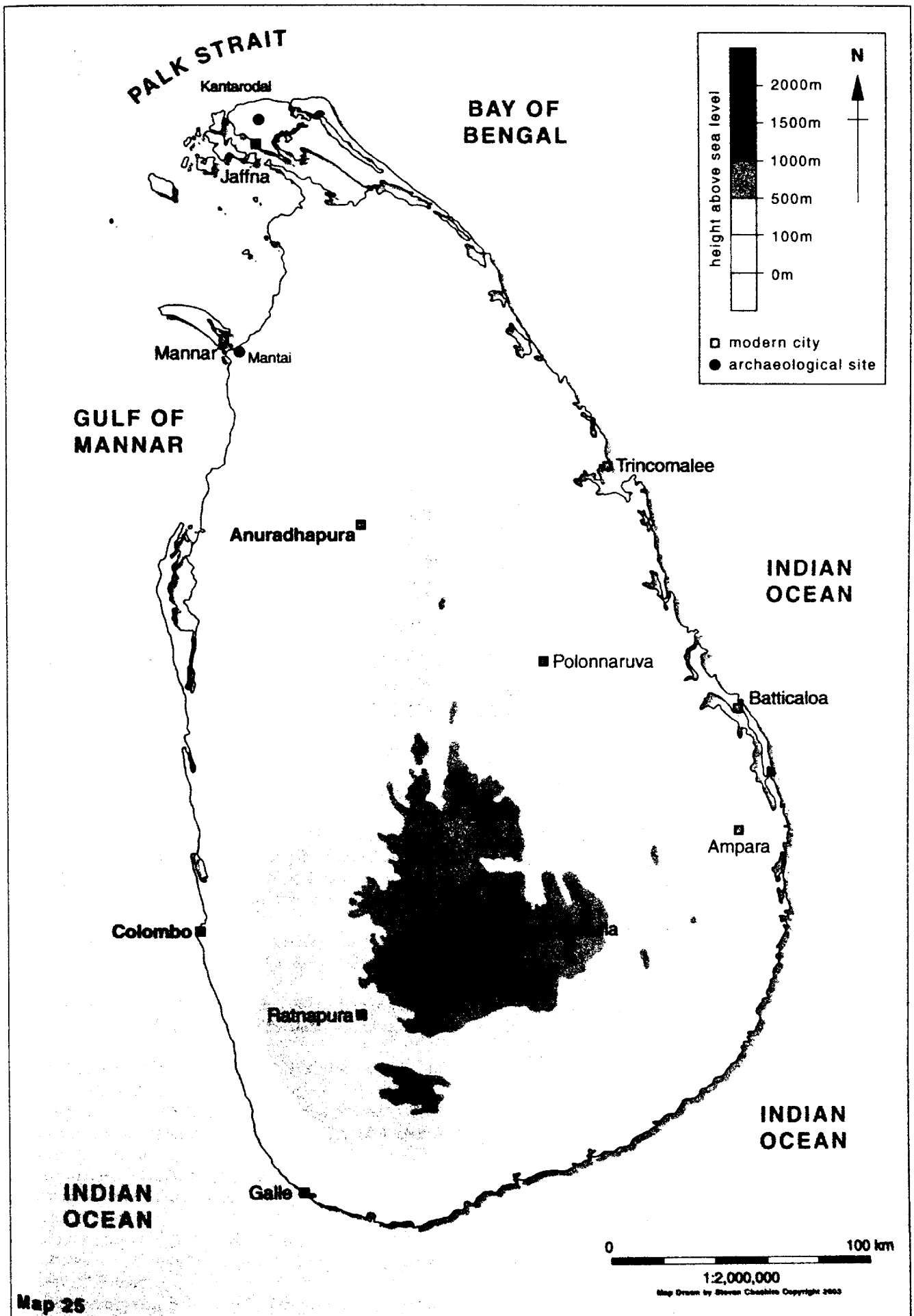
location within the city. In contrast, it was assumed that during the Early Historic period such activities would have been relocated and concentrated in only one locality – demonstrating craft specialization. The pattern for the Early Historic levels is, however, quite different, with numerous craft activities taking place at almost every sampled locality within the city (Coningham 1997, 2000; Coningham and Young 1999). More surprising is the fact that this pattern, of apparent household or at least locality production, continues even into the mediaeval period when Anuradhapura was one of the largest and most powerful cities in South Asia. In the case of this criterion, therefore, it is apparent that the dynamics of craft production established in the Iron Age continue through the city's sequence right up to its abandonment in the eleventh century AD.

The final criterion concerns the establishment of a capable subsistence strategy, one that many associate with massive communal investment in the creation of large-scale tanks, centralized economies, and a reliance upon irrigated rice and a mainly agrarian economy. In contrast, the model proposed for Iron Age subsistence is of small, self-sufficient, sedentary communities dependent on limited irrigation agriculture augmented by slash and burn, and pastoralism (Seneviratne 1992: 101). One would expect, therefore, a transformation in the faunal and floral evidence from within the sequence of trench ASW2 between structural periods J and I (see Chapters 10 and 12). While the botanical evidence for the former period consists of limited rice and the use of hardwood for structural timbers, of the identified faunal material domesticated terrestrial fauna accounted for 47 per cent, terrestrial wild fauna 24 per cent, arboreal fauna 1 per cent, freshwater fauna 22 per cent and marine fauna 6 per cent. This pattern, notwithstanding taphonomic constraints, suggests a very mixed or broad-spectrum subsistence strategy with a wide use of available resources, whether aquatic, arboreal, wild or domesticate. In contrast to this broad-spectrum strategy, one would expect the floral and faunal evidence from the Early Historic levels to map a reliance on rice and domesticated fauna supporting this city of 60 hectares and a possible population of 12,000 people. The available data, however, still support a broad-spectrum strategy with identified species relating to 29 per cent domestic terrestrial fauna, 45 per cent wild terrestrial, 0.5 per cent arboreal, 25 per cent freshwater and 0.5 per cent marine. This pattern is widened further when supplemented by the archaeobotanical samples, which include rice, bamboo, palm leaf, hard and soft woods, and mangrove wood. Indeed, when further supplemented by the presence of finger millet, it demonstrates a very clear similarity with modern village subsistence patterns in North Central Province which, according to Tennakoon (1974) and Leach (1961), consist of seven zones: house garden, tank, traditional paddy fields, newly extended paddy fields, parkland or abandoned chena, chena, and forest. Thus we can even begin to propose a possible subsistence model which links gardens with the evidence of palms, tanks with freshwater aquatic resources, paddy with rice and freshwater aquatic resources, parkland with domestic terrestrial fauna resources, chena with finger millet, forest with wild

fauna and the coast with marine aquatic resources. This mixed, or broad-spectrum, strategy is what might be expected from a small village based upon subsistence strategies and certainly not from a major city; however, this pattern is repeated even in the mediaeval period!

In summary, it may be stated that Anuradhapura does indeed possess each of the ten urbanized criteria in structural period I – marking perhaps the beginning of Anuradhapura's city status. The task of identifying at which point the settlement actually becomes urban is, however, not as clear cut, as a number of characteristics are already in place in the preceding Iron Age levels. Indeed, these characteristics appear to be so embedded within the settlement that they continue throughout its sequence of almost two thousand years. Such unique characteristics would suggest that whatever processes created Anuradhapura as a settlement in the first place were so powerful that they survived its transformation into a formal city. The mechanisms controlling these processes are still poorly understood and must await further research, including settlement survey in the city's hinterland.

As stated in Chapter 1, work was started at trench ASW2 in 1989 by the Sri Lankan–British team in order to generate Sri Lanka's first clear artefactual and structural sequence. The trench was also excavated in order to fill not only the lacunae within Sri Lanka's chronological and artefactual sequences but also the lacunae in the chronological and artefactual sequence for the southern part of South Asia. Building on the pioneering, and often prophetic, work of Dr Siran Deraniyagala, overall director of the Anuradhapura Citadel Archaeological Project, these aims were realized and our two volumes represent one of the most detailed archaeological samples from an Early Historic urban centre in South Asia. They also provide a unique sequence illustrating the structural, artefactual, faunal and floral cross-section of a city from its origins as an Iron Age village to its emergence as an imperial metropolis in the eleventh century AD. This sequence of almost two millennia has provided us with one of the fullest anatomies of the development and nature of a South Asian Early Historic city. We have managed to identify the earliest appearance of a number of clearly urban criteria within Anuradhapura's sequence but have also identified the presence of a number of powerful patterns which present clear continuity throughout the site's occupation. This evidence demonstrates, yet again, that the process of Early Historic urbanization within Sri Lanka was not one of imposition, nor of autochthonous development. Only when similar detailed evidence is available from other regions of South Asia will we be able to judge whether the processes and mechanisms which generated the phenomenon of the Early Historic city were shared, or whether they were unique in each case.



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Abbreviations

Arth.	<i>Arthasastra</i>
BAR	British Archaeological Reports
CUP	Cambridge University Press
IAR	<i>Indian Archaeology: A Review</i>
Mana.	<i>Manasara</i>
Manu.	<i>Manudharmasastra</i>
MDAFA	<i>Mémoires de la Délégation Archéologique Française en Afghanistan</i>
Mvs.	<i>Mahavamsa</i>
OUP	Oxford University Press

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Appendix A: Glass Bead Catalogue

Illustrated examples in bold

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape	
5	4	sw	CXIV	Red	0.9	0.1	0.16	Disc	
7	5	ne	CXII	Orange	0.6	0.3	0.15	Disc	
8	12	se	CVIII	Pale green	1.3	1.65	3.87	Sphere	
16	9	nw	CVI	White	1.4	0.9	2.68	Unperforated sphere	
22	9	ne	CVI	Pale green	0.3	0.5	0.11	Spherical disc	
27	9	ne	CVI	Orange	0.45	0.5	0.15	Sphere	
30	9	ne	CVI	Orange	0.25	0.5	0.09	Spherical disc	
33	9	se	CVI	Pale green	1.1	1.2	1.84	Sphere	
44	17	se	CXIII	Pale green	1.2	1	1.3	Sphere	
48	18	sw	CX	Red	3.2	1.8	3.17	Notched & collared sphere	Figure 7.3
56	14	ne	CII	Red	2.1	0.65	0.88	Collared sphere	
83	27	se	C	Pale blue	0.4	0.45	0.1	Sphere	
88	37	ne	CI	Green&yellow	0.32	0.5	0.13	Spherical disc	
98	26	sw	CIV	Pale blue	0.2	0.3	0.04	Spherical disc	
110	27	se	C	Green&yellow	0.2	0.3	0.02	Sphere	Figure 7.2
117	27	se	C	Pale green	0.35	0.6	0.17	Spherical disc	
138	44	se	XCV	Orange	0.25	0.5	0.14	Spherical disc	
143	25	se	XCVI	Dark green	0.3	0.4	0.1	Sphere	
144	25	ne	XCVII	Black	0.32	0.5	0.15	Collared sphere	
146	41	ne	C	Black	0.8	0.5	0.41	Spherical disc	
151	44	sw	XCV	Pale blue	0.4	0.15	0.09	Undiagnostic	
152	51	nw	XCIX	White	0.4	0.6	0.1	Sphere	
154	49	sw	XCV	Pale green	0.4	0.4	0.51	Sphere	
165	57	se	XCVIII	Pale green	0.3	0.4	0.5	Sphere	
168	41	se	C	Pale blue	0.2	0.45	0.03	Disc	
183	41	sw	C	White	2.7	1.5	8.29	Unperforated sphere	
184	41	sw	C	Dark blue	0.75	0.7	0.49	Sphere	
185	60	se	XCV	Pale blue	0.8	0.7	0.5	Sphere	
186	60	se	XCV	Brown	0.8	0.4	0.21	Tube	Figure 7.2
187	65	sw	CX	Green&yellow	1.5	0.7	1.17	Sphere	
193	25	ne	XCVII	Green&yellow	1.3	1.6	1.96	Sphere	
195	25	ne	XCVII	Orange	0.2	0.4	0.07	Spherical disc	
199	65	sw	CX	Green&yellow	2.3	1.6	3.28	Undiagnostic	
200	65	sw	CX	Dark blue	0.4	0.2	0.08	Disc	
201	65	sw	CX	Pale blue	0.4	0.3	0.14	Sphere	
203	65	sw	CX	Pale green	0.6	0.5	0.2	Collared sphere	
205	74	sw	XCIV	Pale green	0.6	0.6	0.18	Spherical disc	
216	73	sw	XCVI	Dark green	0.7	0.4	0.21	Spherical disc	
219	25	nw	XCVII	Pale green	0.85	0.7	0.35	Collared sphere	
223	73	sw	XCVI	Pale green	0.9	0.8	0.72	Collared sphere	
230	73	sw	XCIV	Orange	0.32	0.75	0.34	Spherical disc	
231	80	sw	XCV	Pale green	0.75	0.5	0.32	Spherical disc	
235	75	sw	XCVI	Orange	0.25	0.4	0.23	Spherical disc	
239	56	nw	XCV	Pale blue	0.4	0.3	0.24	Tube	
243	56	nw	XCV	Pale blue	0.4	0.4	0.11	Sphere	
246	56	nw	XCV	Pale blue	0.3	0.2	0.01	Disc	
249	25	ne	XCVII	Pale green	0.7	0.8	0.43	Collared sphere	
250	94	ne	CII	Orange	0.2	0.5	0.09	Disc	
254	99	se	CXV	Red	0.15	1.25	0.26	Disc	
255	99	se	CXV	Green&yellow	0.2	0.4	0.08	Sphere	
257	88	ne	XCV	Green&yellow	1.35	1.3	2.51	Sphere	
263	80	nw	XCV	Pale blue	0.3	0.35	0.07	Sphere	
268	97	se	XCV	Pale green	0.5	0.6	0.28	Sphere	
272	91	ne	XCV	Pale blue	1.35	1.6	0.1	Notched prism	
277	88	ne	XCV	Pale green	0.3	0.4	0.08	Sphere	
285	56	se	XCV	White	1.56	1.45	3.43	Sphere	
286	44	sw	XCV	Orange	0.5	0.3	0.07	Tube	
287	44	sw	XCV	Orange	0.5	0.3	0.1	Tube	
288	19	se	CX	Pale blue	0.75	0.5	0.26	Sphere	
293	88	ne	XCV	Orange	0.3	0.5	0.12	Spherical disc	
296	88	ne	XCV	White	1.1	0.9	0.16	Unperforated sphere	
297	88	sw	XCV	Dark green	0.7	0.4	0.1	Collared sphere	
300	88	ne	XCV	Dark green	0.4	0.3	0.08	Spherical disc	
301	88	ne	XCV	Pale green	1.1	1.2	1.44	Collared sphere	
306	103	nw	XCV	Pale green	0.7	0.8	0.38	Collared sphere	
309	100	ne	XCV	Pale green	0.7	0.5	0.41	Spherical disc	
311	120	se	XCVI	Yellow	0.5	0.3	0.16	Spherical disc	
315	98	ne	XCV	Dark blue	0.6	0.5	0.17	Sphere	
317	78	ne	XCV	Pale green	0.5	0.4	0.22	Spherical disc	
325	111	sw	XCV	Dark green	0.4	0.5	0.14	Sphere	
328	126	se	XCV	Dark green	0.6	0.3	0.16	Spherical disc	
337	130	sw	XCV	Green&yellow	1.85	1.01	3.25	Elliptical	
340	130	se	XCV	Orange	0.3	0.5	0.12	Spherical disc	
341	127	nw	XCV	Pale green	1.5	1.8	4.79	Collared sphere	
380	5	ne	CXII	Red	0.4	0.3	0.4	Spherical disc	
393	4	sw	CXIV	Red	0.4	0.4	0.08	Spherical disc	
409	78	ne	XCV	Yellow	0.4	0.1	1.2	Sphere	
410	123	se	XCV	White	0.3	0.4	0.05	Spherical disc	
411	78	ne	XCV	Pale blue	0.4	0.55	0.21	Spherical disc	

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
414	76	ne	XCV	Pale blue	0.6	0.57	0.37	Sphere
415	123	se	XCV	Pale green	0.2	0.4	0.04	Spherical disc
421	121	ne	XCV	Pale green	1.1	1.2	1.33	Collared sphere
429	134	ne	XCV	White	1.3	0.7	0.43	Undiagnostic
436	100	ne	XCV	Pale green	2.3	2	7.37	Elliptical
437	100	ne	XCV	Pale blue	0.4	0.3	0.21	Barrel
442	141	ne	XCV	Dark blue	0.4	0.3	0.1	Sphere
443	134	ne	XCV	Pale green	0.4	0.2	0.05	Disc
451	134	ne	XCV	Pale green	1.1	0.9	0.69	Collared sphere
455	134	ne	XCV	Green&yellow	0.6	0.4	0.2	Sphere
457	134	ne	XCV	Pale green	0.1	0.3	0.01	Sphere
468	127	nw	XCV	Pale green	1.3	1.7	4.14	Sphere
475	134	ne	XCV	Pale green	0.4	0.2	0.06	Sphere
476	134	ne	XCV	Yellow	0.5	0.4	0.07	Sphere
479	158	nw	XCV	Pale green	1.8	1.6	4.39	Elliptical
495	151	se	XCV	Pale blue	0.8	0.5	0.37	Undiagnostic
496	134	ne	XCV	Pale green	0.8	0.6	0.29	Collared sphere
497	167	se	XCVIII	Yellow	0.4	0.2	0.07	Sphere
499	156	se	XCV	Pale green	0.8	0.7	0.43	Undiagnostic
500	65	sw	CX	Brown	1.1	0.5	0.33	Undiagnostic
501	5	nw	CXII	Green&yellow	1.2	0.9	1.78	Undiagnostic
502	5	nw	CXII	Green&yellow	0.85	0.9	0.88	Undiagnostic
503	5	nw	CXII	Yellow	0.3	0.6	0.26	Spherical disc
504	5	nw	CXII	Pale green	0.4	0.6	0.27	Spherical disc
505	5	nw	CXII	Pale green	0.35	0.6	0.14	Spherical disc
506	5	nw	CXII	Pale blue	0.4	0.95	0.59	Spherical disc
507	5	nw	CXII	Red	0.2	1.15	0.4	Disc
508	5	nw	CXII	Orange	0.3	0.55	0.16	Spherical disc
509	5	nw	CXII	Red	0.4	0.6	0.23	Spherical disc
510	5	nw	CXII	Orange	0.2	0.5	0.02	Disc
511	5	nw	CXII	Orange	0.3	0.6	0.14	Spherical disc
512	25	ne	XCVII	Brown	0.15	1.1	0.34	Disc
513	25	ne	XCVII	Brown	0.15	0.95	0.23	Disc
514	25	ne	XCVII	Brown	0.15	0.9	0.2	Disc
515	25	ne	XCVII	Brown	0.15	1.05	0.28	Disc
516	25	ne	XCVII	Brown	0.2	0.9	0.25	Disc
517	25	ne	XCVII	Brown	0.14	0.9	0.2	Disc
518	25	ne	XCVII	Brown	0.15	0.75	0.1	Disc
519	25	ne	XCVII	Brown	0.1	0.9	0.17	Disc
520	25	ne	XCVII	Brown	0.15	1.2	0.21	Disc
521	25	ne	XCVII	Dark blue	0.2	0.4	0.18	Spherical disc
522	25	ne	XCVII	Yellow	0.15	0.5	0.02	Disc
523	25	ne	XCVII	Yellow	0.15	0.55	0.11	Disc
524	25	ne	XCVII	Orange	0.2	0.5	0.16	Disc
525	25	ne	XCVII	Pale green	0.15	0.45	0.08	Spherical disc
526	25	ne	XCVII	Orange	0.2	0.5	0.05	Disc
527	25	ne	XCVII	Dark blue	0.25	0.5	0.14	Spherical disc
528	25	ne	XCVII	Pale green	0.15	0.3	0.01	Spherical disc
529	25	ne	XCVII	Black	0.4	0.5	5.5	Sphere
530	25	ne	XCVII	White	0.4	0.6	0.23	Spherical disc
531	25	ne	XCVII	White	0.35	0.5	0.15	Spherical disc
532	25	ne	XCVII	Pale green	0.4	0.5	0.2	Sphere
533	25	ne	XCVII	Red	0.4	0.55	0.12	Spherical disc
534	25	ne	XCVII	Green&yellow	0.3	0.6	0.1	Spherical disc
535	25	ne	XCVII	Green&yellow	0.4	0.4	0.12	Sphere
536	25	ne	XCVII	Pale green	0.45	0.5	0.1	Sphere
537	25	ne	XCVII	Orange	0.35	0.55	0.1	Spherical disc
538	25	ne	XCVII	Pale green	0.3	0.4	0.01	Spherical disc
539	25	ne	XCVII	Pale green	0.25	0.5	0.05	Spherical disc
540	25	ne	XCVII	Orange	0.2	0.4	0.12	Spherical disc
541	25	ne	XCVII	White	0.2	0.4	0.1	Spherical disc
542	25	ne	XCVII	White	0.2	0.3	0.03	Sphere
543	25	ne	XCVII	White	0.2	0.35	0.7	Spherical disc
544	25	ne	XCVII	White	0.2	0.35	0.01	Spherical disc
545	74	sw	XCIV	Brown	0.25	0.4	0.09	Spherical disc
546	74	sw	XCIV	White	0.3	0.6	0.13	Spherical disc
547	74	sw	XCIV	Brown	0.8	0.35	0.1	Tube
548	74	sw	XCIV	Pale blue	0.4	0.35	0.08	Undiagnostic
549	74	sw	XCIV	Red	0.35	0.3	0.02	Sphere
550	74	sw	XCIV	Orange	0.8	0.35	0.19	Undiagnostic
551	130	sw	XCV	Brown	0.15	0.8	0.14	Disc
552	80	nw	XCV	White	0.25	0.5	0.08	Spherical disc
553	80	nw	XCV	Orange	0.4	0.5	0.18	Tube
554	80	nw	XCV	Orange	0.5	0.55	0.17	Spherical disc
555	80	nw	XCV	Orange	0.35	0.35	0.07	Sphere
556	80	nw	XCV	Orange	0.2	0.45	0.07	Spherical disc
557	80	nw	XCV	Orange	0.2	0.4	0.01	Spherical disc
558	80	nw	XCV	Orange	0.4	0.25	0.08	Spherical disc
559	80	nw	XCV	Orange	0.15	0.35	0.04	Spherical disc
560	80	nw	XCV	Orange	0.3	0.45	0.1	Spherical disc
561	80	nw	XCV	Orange	0.35	0.25	0.05	Spherical disc
563	87	se	XCV	Brown	0.15	0.85	0.26	Disc

Figure 7.2

Appendix

Sl. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
564	87	se	XCV	Brown	0.15	0.6	0.11	Disc
565	87	se	XCV	Brown	0.15	0.45	0.11	Disc
566	87	se	XCV	Orange	0.25	0.5	0.1	Spherical disc
567	87	se	XCV	Brown	0.25	0.45	0.07	Spherical disc
568	87	se	XCV	Brown	0.2	0.55	0.07	Spherical disc
569	87	se	XCV	Orange	0.5	0.3	0.04	Tube
570	87	se	XCV	Red	0.4	0.45	0.04	Sphere
571	87	se	XCV	Pale green	0.3	0.4	0.06	Sphere
572	87	se	XCV	Red	0.3	0.4	0.06	Sphere
573	87	se	XCV	Orange	0.25	0.37	0.07	Spherical disc
574	87	se	XCV	Green&yellow	0.3	0.4	0.03	Sphere
575	87	se	XCV	Orange	0.5	0.55	0.11	Sphere
576	87	se	XCV	Orange	0.25	0.35	0.02	Sphere
577	87	se	XCV	Red	0.35	0.4	0.06	Tube
578	87	se	XCV	Red	0.25	0.37	0.04	Sphere
579	87	se	XCV	Pale green	0.2	0.3	0.04	Spherical disc
580	87	se	XCV	Pale green	0.17	0.3	0.03	Spherical disc
581	87	se	XCV	Green&yellow	0.5	0.2	0.03	Undiagnostic
582	56	sw	XCV	Brown	0.15	0.9	0.14	Disc
583	56	sw	XCV	Dark green	0.55	0.4	0.1	Elliptical
584	56	sw	XCV	Pale green	0.2	0.4	0.03	Spherical disc
585	56	sw	XCV	Brown	0.5	0.4	0.1	Sphere
586	56	sw	XCV	Orange	0.27	0.5	0.14	Spherical disc
587	56	sw	XCV	Pale blue	0.25	0.5	0.1	Spherical disc
588	56	sw	XCV	Brown	0.32	0.45	0.19	Spherical disc
589	56	sw	XCV	Orange	0.45	0.47	0.15	Tube
590	56	sw	XCV	Yellow	0.4	0.4	0.09	Sphere
591	56	sw	XCV	Orange	0.25	0.5	0.12	Spherical disc
592	56	sw	XCV	Orange	0.32	0.35	0.04	Tube
593	56	sw	XCV	Orange	0.25	0.3	0.05	Sphere
594	56	sw	XCV	Pale blue	0.25	0.4	0.02	Spherical disc
595	56	sw	XCV	Orange	0.35	0.4	0.05	Tube
596	56	sw	XCV	Red	0.3	0.45	0.03	Tube
597	56	sw	XCV	Red	0.15	0.35	0.03	Spherical disc
598	56	sw	XCV	Orange	0.25	0.3	0.03	Tube
599	56	sw	XCV	Pale blue	0.35	0.3	0.03	Undiagnostic
600	88	ne	XCV	Orange	0.4	0.3	0.1	Spherical disc
605	75	sw	XCH	Pale blue	shattered	shattered	2.69	Undiagnostic
621	123	se	XCV	Orange	0.4	0.2	0.03	Spherical disc
623	123	se	XCV	Brown	0.8	0.2	0.08	Disc
643	180	nw	XCH	Yellow	0.3	0.2	0.01	Disc
658	186	nw	XCV	Green&yellow	0.1	0.8	0.54	Collared sphere
660	181	se	XCV	Pale blue	0.5	0.4	0.13	Spherical disc
661	181	se	XCV	Orange	0.4	0.2	0.06	Spherical disc
679	183	ne	XCV	Yellow	0.6	0.4	0.28	Tube
682	175	nw	XCV	Pale blue	0.4	0.3	0.1	Spherical disc
685	142	se	XCV	Orange	0.6	0.1	0.07	Disc
686	142	se	XCV	Green&yellow	0.9	0.65	0.65	Undiagnostic
687	73	sw	XCH	Pale green	0.1	0.2	0.01	Spherical disc
689	188	sw	XCV	Yellow	0.3	0.8	0.02	Spherical disc
693	188	sw	XCV	Dark blue	0.5	0.3	0.09	Spherical disc
695	188	sw	XCV	Yellow	0.3	0.2	0.01	Spherical disc
698	188	sw	XCV	Dark blue	0.5	0.3	0.12	Disc
700	197	sw	XCV	Pale green	0.3	0.6	0.26	Collared sphere
701	151	se	XCV	Dark blue	1.1	0.8	1.21	Disc
705	182	se	XCV	Orange	0.25	0.6	0.1	Spherical disc
710	197	sw	XCV	Dark green	0.6	0.6	0.36	Collared sphere
716	182	se	XCV	Green&yellow	1.2	1.05	1.58	Sphere
727	197	sw	XCV	Pale blue	0.4	0.3	0.09	Sphere
765	107	nw	XCV	Dark green	0.3	0.2	0.05	Spherical disc
770	183	nw	XCV	Yellow	0.5	0.3	0.07	Sphere
772	100	ne	XCV	Pale green	0.3	0.2	0.03	Elliptical
775	73	sw	XCH	Yellow	0.5	0.3	0.08	Sphere
777	73	sw	XCH	Yellow	shattered	shattered	0.08	Sphere
783	97	se	XCH	Yellow	0.4	0.3	0.08	Sphere
784	107	nw	XCV	Pale green	1.2	0.8	1.07	undiagnostic
787	41	nw	C	Pale green	0.4	0.6	0.67	undiagnostic
790	25	ne	XCVII	Dark blue	0.5	0.3	0.54	undiagnostic
791	182	se	XCV	Brown	1.05	0.15	0.19	Disc
793	200	ne	XCH	Pale green	1.15	0.6	0.58	Spherical disc
812	204	ne	XCV	White	0.75	1.05	0.87	Notched prism
813	204	ne	XCV	Pale blue	0.4	0.4	0.11	Sphere
814	100	ne	XCV	Pale blue	0.35	0.65	0.23	Spherical disc
815	100	ne	XCV	Brown	1.05	0.15	0.21	Disc
816	26	sw	CIV	Pale blue	0.9	0.55	0.45	Notched prism
817	88	ne	XCV	Pale green	0.7	0.9	0.39	Sphere
818	74	sw	XCV	Orange	0.5	0.2	0.08	Disc
819	74	sw	XCV	Blue & yellow	0.65	0.7	0.47	Sphere
820	97	sw	XCV	Dark blue	0.6	0.65	0.49	Sphere
821	97	sw	XCV	Dark blue	0.8	0.55	0.34	Tube
822	97	sw	XCV	Pale green	0.5	0.4	0.48	Tube
823	182	se	XCV	Pale blue	1.7	1.4	2.24	Collared sphere

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
824	182	se	XCV	Pale blue	shattered	shattered	2.34	Undiagnostic
825	182	se	XCV	Dark blue	1	1.1	1.74	Sphere
826	182	se	XCV	Pale blue	1.3	0.4	1.1	Undiagnostic
947	25	ne	XCVII	Dark blue	0.9	0.8	1.06	Spherical disc
951	15	ne	CXI	Pale green	1.5	1.3	1.32	Sphere
997	166	se	XCV	yellow	0.44	0.25	0.06	Spherical disc
998	166	se	XCV	Red	0.38	0.38	0.06	Spherical disc
1000	41	sw	C	Pale blue	0.5	0.5	0.16	Sphere
1001	41	sw	C	Red	0.5	0.33	0.11	Spherical disc
1002	41	sw	C	Pale green	0.35	0.35	0.04	Sphere
1003	41	sw	C	Orange	0.55	0.22	0.08	Spherical disc
1004	41	sw	C	Pale green	0.44	0.35	0.09	Spherical disc
1005	41	sw	C	Orange	0.45	0.2	0.05	Spherical disc
1006	41	sw	C	Orange	1.8	0.38	0.35	Tube
1007	41	sw	C	Orange	0.9	0.35	0.16	Tube
1010	41	sw	C	Orange	0.58	0.26	0.11	Spherical disc
1011	41	sw	C	Orange	0.44	0.44	0.1	Spherical disc
1012	41	sw	C	yellow	0.36	0.34	0.06	Tube
1013	41	sw	C	Red	0.55	0.5	0.19	Tube
1014	41	sw	C	Pale green	0.4	0.55	0.15	Spherical disc
1015	41	sw	C	Pale blue	0.43	0.4	0.1	Spherical disc
1016	41	sw	C	Pale green	0.5	0.31	0.11	Spherical disc
1017	41	sw	C	Pale green	0.51	0.38	0.12	Spherical disc
1018	41	sw	C	Black	0.55	0.33	0.11	Spherical disc
1019	41	sw	C	Pale green	0.4	0.25	0.04	Spherical disc
1020	41	sw	C	Red	0.4	0.27	0.05	Spherical disc
1021	41	sw	C	Orange	0.42	0.21	0.05	Spherical disc
1022	41	sw	C	Orange	0.42	0.26	0.05	Spherical disc
1023	41	sw	C	Orange	0.4	0.2	0.02	Spherical disc
1024	41	sw	C	Orange	0.32	0.17	0.02	Spherical disc
1025	41	sw	C	Orange	0.3	0.14	0.02	Spherical disc
1026	41	sw	C	Red	0.36	0.24	0.03	Spherical disc
1027	41	sw	C	Orange	0.4	0.16	0.04	Spherical disc
1028	41	sw	C	Orange	0.32	0.2	0.02	Spherical disc
1029	41	sw	C	Red	0.5	0.25	0.07	Spherical disc
1030	41	sw	C	Orange	0.52	0.25	0.1	Spherical disc
1031	41	sw	C	yellow	0.4	0.35	0.1	Spherical disc
1032	41	sw	C	Pale blue	0.38	0.24	0.04	Spherical disc
1033	41	sw	C	Pale green	0.44	0.24	0.05	Spherical disc
1034	41	sw	C	Orange	0.31	0.15	0.02	Spherical disc
1036	41	sw	C	Pale blue	0.7	0.3	0.09	Tube
1037	41	sw	C	Red	0.7	0.24	0.12	Spherical disc
1038	41	sw	C	Red	0.35	0.33	0.05	Spherical disc
1039	41	sw	C	yellow	0.35	0.26	0.03	Spherical disc
1040	41	sw	C	Red	0.32	0.22	0.03	Spherical disc
1041	41	sw	C	Red	0.47	0.36	0.07	Tube
1042	41	sw	C	Orange	0.4	0.2	0.03	Spherical disc
1043	41	sw	C	Orange	0.5	0.32	0.01	Spherical disc
1070	133	ne	XCV	Pale green	0.61	0.36	0.18	Spherical disc
1071	133	ne	XCV	Pale green	1.19	0.73	0.79	Collared sphere
1072	96	sw	XCV	Pale blue	0.45	0.44	0.09	Spherical disc
1077	88	ne	XCV	Pale green	0.75	0.55	0.23	Elliptical
1082	142	se	XCV	Pale green	0.63	0.75	0.22	Collared sphere
1091	123	se	XCV	Purple	0.77	0.8	0.7	Sphere
1102	123	se	XCV	Pale blue	0.6	0.6	0.13	Spherical disc
1103	123	se	XCV	Pale green	0.47	0.46	0.13	Spherical disc
1104	123	se	XCV	Pale green	0.63	0.55	0.18	Elliptical
1105	123	se	XCV	Purple	1.02	0.4	0.47	Collared sphere
1109	73	sw	XCII	yellow	0.45	0.44	0.08	Spherical disc
1110	73	sw	XCII	Pale green	0.55	0.53	0.21	Sphere
1111	73	sw	XCII	Brown	0.8	0.82	0.25	Collared sphere
1113	73	sw	XCII	Pale blue	chips x4		0.17	Spherical disc
1114	73	sw	XCII	Pale green	0.4	0.7	0.22	Spherical disc
1115	73	sw	XCII	yellow	0.32	0.5	0.11	Spherical disc
1122	73	sw	XCII	Pale blue	0.35	0.27	0.05	Spherical disc
1137	25	ne	XCVII	Pale blue	0.44	0.6	0.25	Spherical disc
1147	25	ne	XCVII	Pale green	0.37	0.51	0.15	Spherical disc
1148	25	ne	XCVII	Pale green	0.33	0.63	0.2	Spherical disc
1149	25	ne	XCVII	Orange	0.26	0.48	0.1	Spherical disc
1150	25	ne	XCVII	Red	0.42	0.58	0.22	Spherical disc
1153	25	ne	XCVII	Dark green	0.32	0.6	0.18	Spherical disc
1154	25	ne	XCVII	Dark green	0.32	0.5	0.12	Spherical disc
1155	25	ne	XCVII	Pale green	0.35	0.47	0.12	Spherical disc
1156	25	ne	XCVII	yellow	0.27	0.43	0.06	Spherical disc
1158	25	ne	XCVII	Red	0.23	0.4	0.04	Spherical disc
1159	25	ne	XCVII	Pale green	0.35	0.38	0.06	Spherical disc
1160	25	ne	XCVII	Red	0.24	0.4	0.05	Spherical disc
1170	25	ne	XCVII	yellow	0.1	0.52	0.06	Spherical disc
1171	25	ne	XCVII	yellow	0.36	0.52	0.14	Spherical disc
1172	25	ne	XCVII	yellow	0.3	0.36	0.05	Spherical disc
1173	25	ne	XCVII	Pale green	0.25	0.46	0.08	Spherical disc
1180	25	ne	XCVII	Orange	0.19	0.44	0.04	Spherical disc

Figure 7.2

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
1181	25	ne	XCVII	Dark blue	0.42	0.36	0.07	Spherical disc
1182	25	ne	XCVII	Pale green	0.31	0.63	0.15	Spherical disc
1183	25	ne	XCVII	Dark blue	0.44	0.4	0.08	Spherical disc
1184	25	ne	XCVII	yellow	0.16	0.35	0.02	Spherical disc
1185	25	ne	XCVII	Dark green	0.23	0.34	0.03	Spherical disc
1196	71	sw	XCIII	Pale blue	0.37	0.49	0.1	Spherical disc
1197	71	sw	XCIII	Pale green	0.28	0.37	0.05	Spherical disc
1198	71	sw	XCIII	yellow	0.32	0.43	0.08	Spherical disc
1199	71	sw	XCIII	Orange	0.3	0.38	0.06	Spherical disc
1200	71	sw	XCIII	Orange	0.3	0.47	0.11	Spherical disc
1201	71	sw	XCIII	Pale green	0.77	0.58	0.21	Collared sphere
1202	71	sw	XCIII	Orange	0.32	0.37	0.05	Spherical disc
1203	71	sw	XCIII	Red&white	0.47	0.32	0.06	Collared sphere
1204	71	sw	XCIII	Pale green	0.2	0.28	0.01	Spherical disc
1205	71	sw	XCIII	Red	0.17	0.44	0.04	Spherical disc
1207	71	sw	XCIII	Red	0.16	0.66	0.07	Spherical disc
1208	71	sw	XCIII	Orange	0.14	0.4	0.03	Spherical disc
1209	71	sw	XCIII	Orange	0.18	0.3	0.02	Spherical disc
1214	25	nw	XCVII	Dark green	0.37	0.43	0.08	Spherical disc
1215	25	nw	XCVII	Pale green	0.37	0.58	0.17	Spherical disc
1216	25	nw	XCVII	Pale green	0.24	0.6	0.11	Spherical disc
1217	25	nw	XCVII	Orange	0.43	0.57	0.19	Spherical disc
1218	25	nw	XCVII	Dark green	0.07	0.55	0.04	Disc
1220	74	sw	XCIV	Black	1.22	1.03	0.62	Collared sphere
1221	25	nw	XCVII	Pale green	0.75	0.64	0.16	Collared sphere
1222	25	nw	XCVII	Orange	0.17	0.4	0.04	Spherical disc
1223	25	nw	XCVII	Orange	0.18	0.45	0.05	Spherical disc
1227	25	nw	XCVII	Orange	0.1	0.27	0.01	Spherical disc
1228	25	nw	XCVII	Pale green	0.37	0.63	0.09	Spherical disc
1229	25	nw	XCVII	Pale green	0.37	0.55	0.08	Spherical disc
1231	25	nw	XCVII	Dark blue	0.48	0.48	0.17	Barrel
1243	76	ne	XCV	Pale green	1.24	0.66	0.52	Collared sphere
1255	88	ne	XCV	Pale green	1.7	0.4	0.76	Unperforated sphere
1264	41	sw	C	Pale green	chip x1		0.05	Collared sphere
1265	41	sw	C	Dark blue	chip x1		0.13	Spherical disc
1271	41	se	C	Pale blue	chip x1		0.1	Spherical disc
1275	166	se	XCV	Pale green	0.16	0.36	0.03	Spherical disc
1276	25	ne	XCVII	Pale green	chip x1		0.05	Undiagnostic
1303	166	se	XCV	Pale blue	1.51	1.01	0.96	Collared sphere
1387	79	ne	XCVII	Pale blue	0.2	0.35	0.02	Spherical disc
1389	79	ne	XCVII	Orange	0.3	0.3	0.02	Spherical disc
1391	80	sw	XCV	Pale green	0.2	0.35	0.03	Spherical disc
1400	90	ne	XCV	Pale green	0.2	0.38	0.03	Spherical disc
1427	157	se	XCV	Pale green	0.85	0.5	0.21	Elliptical
1500	254	se	XCV	yellow	0.35	0.44	0.1	Spherical disc
1501	254	se	XCV	Pale green	0.4	0.4	0.08	Spherical disc
1502	254	se	XCV	Pale blue	0.55	0.3	0.12	Spherical disc
1504	254	se	XCV	White	0.3	0.46	0.08	Spherical disc
1505	254	se	XCV	yellow	0.33	0.42	0.07	Spherical disc
1506	254	se	XCV	Pale blue	0.3	0.46	0.1	Spherical disc
1515	251	sw	XCV	Pale green	0.28	0.34	0.03	Spherical disc
1526	252	sw	XCV	Pale blue	0.78	1	0.44	Sphere
1527	252	sw	XCV	yellow	0.36	0.42	0.11	Spherical disc
1528	252	sw	XCV	Pale green	0.97	1.03	0.84	Ringed sphere
1539	273	se	XCV	Brown	1.33	1.15	1.76	Collared sphere
1547	259	sw	XCV	Pale blue	1.53	0.86	1.19	Elliptical
1548	259	sw	XCV	Orange	0.31	0.45	0.06	Spherical disc
1553	261	nw	XCV	Pale blue	0.33	0.4	0.07	Spherical disc
1554	255	se	XCV	Pale blue	1.6	1.7	4.52	Collared sphere
1564	264	ne	XCIII	Pale green	0.32	0.64	0.17	Spherical disc
1573	262	se	XCV	Pale green	0.6	0.52	0.15	Elliptical
1575	265	se	XCV	Dark green	0.5	0.6	0.24	Spherical disc
1577	264	nw	XCIII	Pale green	0.93	1.1	0.7	Collared sphere
1578	262	se	XCV	Dark blue	0.66	0.53	0.21	Elliptical
1580	265	se	XCV	Dark blue	0.42	0.5	0.15	Spherical disc
1595	273	se	XCV	Pale green	1.2	0.93	0.8	Collared sphere
1597	271	se	XCV	Dark green	0.4	0.55	0.16	Spherical disc
1600	268	se	XCV	yellow	0.6	0.48	0.1	Collared sphere
1603	271	se	XCV	Orange	0.6	0.45	0.19	Spherical disc
1608	271	se	XCV	Pale blue	0.4	0.36	0.06	Spherical disc
1615	271	se	XCV	Pale green	chip x1		1.27	Collared sphere
1617	256	se	XCV	Red	0.34	0.39	0.06	Spherical disc
1623	256	se	XCV	Brown	0.31	0.55	0.12	Spherical disc
1624	256	se	XCV	Pale green	0.23	0.35	0.03	Spherical disc
1626	284	nw	XCV	Pale green	0.75	0.75	0.42	Collared sphere
1639	283	nw	XCV	White	0.42	0.58	0.16	Spherical disc
1643	263	nw	XCV	Pale green	0.45	0.53	0.19	Spherical disc
1644	263	nw	XCV	Pale green	0.4	0.4	0.11	Spherical disc
1648	256	se	XCV	yellow	0.42	0.54	0.23	Spherical disc
1655	283	nw	XCV	Pale blue	1.58	1.61	4.1	Collared sphere
1657	600	se	XCV	Orange	0.2	0.45	0.05	Spherical disc
1658	256	se	XCV	Orange	0.28	0.3	0.03	Spherical disc

Figure 7.2

Figure 7.3

Figure 7.2

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape	
1668	285	se	XCV	Orange	0.4	0.53	0.17	Tube	Figure 7.2
1670	256	se	XCV	Pale green	0.25	0.4	0.05	Spherical disc	
1680	263	nw	XCV	Orange	0.7	0.6	0.26	Tube	
1681	287	ne	XCV	Dark green	0.53	0.44	0.14	Spherical disc	
1685	287	ne	XCV	Pale blue	0.26	0.34	0.05	Spherical disc	
1688	272	se	XCV	Pale green	0.37	0.64	0.24	Spherical disc	Figure 7.3
1699	304	ne	XCIII	Pale blue	tiny	chip	negl	Undiagnostic	
1700	304	ne	XCIII	Pale blue	chips xnum.		5.84	Collared sphere	
1704	304	ne	XCIII	Dark green	0.27	0.4	0.06	Spherical disc	
1705	304	ne	XCIII	Pale green	0.3	0.43	0.06	Spherical disc	
1707	304	ne	XCIII	Pale blue	1.13	1.86	4	Collared sphere	Figure 7.3
1710	600		XCV	Pale blue	0.2	0.4	0.04	Spherical disc	
1713	309	nw	XCIII	yellow	0.28	0.3	0.03	Spherical disc	
1714	309	nw	XCIII	Pale green	0.33	0.8	0.3	Spherical disc	
1715	309	nw	XCIII	yellow	chips x3		0.09	Spherical disc	
1716	308	se	XCIII	Pale green	0.4	0.6	0.16	Spherical disc	Figure 7.3
1719	309	nw	XCIII	Orange	0.5	0.4	0.04	Tube	
1720	309	nw	XCIII	yellow	0.27	0.5	0.08	Spherical disc	
1725	310	se	XCIII	yellow	0.35	0.4	0.07	Spherical disc	
1726	310	se	XCIII	yellow	chips x3		0.04	Spherical disc	
1727	272	se	XCV	Orange	0.22	0.4	0.04	Spherical disc	Figure 7.3
1731	272	se	XCV	yellow	0.23	0.36	0.05	Spherical disc	
1735	316	ne	XCV	Pale blue	chips x3		0.92	Undiagnostic	
1745	316	ne	XCV	White	1.43	0.9	0.83	Undiagnostic	
1749	272	se	XCV	Pale green	0.83	0.7	0.32	Collared sphere	
1751	316	se	XCV	Dark blue	0.9	0.45	0.28	Tube	Figure 7.3
1755	316	se	XCV	White	0.3	0.4	0.1	Spherical disc	
1756	272	se	XCV	Pale green	0.34	0.58	0.17	Spherical disc	
1761	289	ne	XCV	Pale green	chips x3		0.04	Spherical disc	
1765	316	ne	XCV	Pale green	0.4	0.43	0.09	Spherical disc	
1768	316	ne	XCV	Pale blue	0.23	0.3	0.02	Spherical disc	Figure 7.3
1769	185	se	XCH	Orange	0.3	0.4	0.08	Spherical disc	
1771	185	se	XCH	Red	0.15	1.08	0.35	Disc	
1773	316	ne	XCV	Pale blue	0.39	0.33	0.06	Spherical disc	
1775	301	ne	XCV	Pale blue	chips		0.06	Undiagnostic	
1780	269	se	XCV	Pale green	0.27	0.46	0.07	Spherical disc	Figure 7.3
1782	301	ne	XCV	yellow	0.2	0.35	0.03	Spherical disc	
1787	320	ne	XCV	Pale green	0.33	0.57	0.15	Collared sphere	
1789	324	ne	XCV	Orange	0.21	0.45	0.07	Spherical disc	
1796	316	ne	XCV	Red	0.3	0.5	0.1	Spherical disc	
1798	324	ne	XCV	Pale green	0.1	0.25	0.01	Spherical disc	Figure 7.3
1800	316	ne	XCV	Pale green	0.18	0.4	0.04	Spherical disc	
1806	325	ne	XCV	Pale green	0.3	0.55	0.11	Spherical disc	
1807	267	se	XCV	Purple	0.9	0.65	0.3	Collared sphere	
1808	316	ne	XCV	Pale green	0.2	0.26	0.02	Spherical disc	
1809	316	ne	XCV	Pale green	chip x1		0.09	Collared sphere	Figure 7.3
1810	316	ne	XCV	yellow	0.38	0.5	0.13	Spherical disc	
1811	316	ne	XCV	Dark blue	chip x1		0.15	Undiagnostic	
1822	316	ne	XCV	Dark blue	chip x1		0.01	Spherical disc	
1823	316	ne	XCV	Pale green	0.21	0.3	0.02	Spherical disc	
1825	316	ne	XCV	Dark green	0.25	0.45	0.08	Spherical disc	Figure 7.3
1826	316	ne	XCV	Pale green	0.17	0.31	0.02	Spherical disc	
1829	316	ne	XCV	Pale blue	crushed	chips	0.04	Undiagnostic	
1830	316	ne	XCV	Pale green	0.25	0.48	0.08	Spherical disc	
1831	316	ne	XCV	Black	0.45	0.7	0.27	Spherical disc	
1839	324	ne	XCV	Pale blue	0.28	0.36	0.05	Spherical disc	Figure 7.3
1840	324	ne	XCV	Dark blue	0.18	0.33	0.02	Spherical disc	
1841	270	se	XCV	Dark blue	0.55	0.53	0.21	Spherical disc	
1852	320	ne	XCV	Pale green	chip x1		0.55	Undiagnostic	
1856	326	ne	XCV	Pale green	0.14	0.33	0.02	Spherical disc	
1860	320	ne	XCV	Dark green	0.49	0.57	0.22	Spherical disc	Figure 7.3
1862	320	ne	XCV	Pale green	chip x1		1.72	Collared sphere	
1870	324	ne	XCV	Pale green	0.36	0.38	0.07	Spherical disc	
1871	325	ne	XCV	Black	0.8	0.92	0.8	Sphere	
1889	332	se	XCV	Pale blue	0.4	0.4	0.08	Spherical disc	
1891	332	se	XCV	Pale blue	0.35	0.42	0.08	Spherical disc	Figure 7.3
1893	332	se	XCV	Pale green	chips x2		0.18	Undiagnostic	
1899	324	ne	XCV	Transparent	1	0.9	0.56	Ringed sphere	
1903	320	ne	XCV	Dark green	0.2	0.46	0.06	Spherical disc	
1905	325	ne	XCV	Pale green	chips x3		0.21	Elliptical	
1912	325	ne	XCV	Pale green	chip x1		0.18	Undiagnostic	Figure 7.3
1918	325	ne	XCV	Pale green	0.26	0.5	0.11	Spherical disc	
1919	73	ne	XCH	Pale green	0.37	0.32	0.04	Spherical disc	
1923	335	ne	XCV	Pale green	0.4	0.35	0.04	Spherical disc	
1927	335	ne	XCV	Pale green	0.52	0.52	0.18	Spherical disc	
1927	335	ne	XCV	Pale green	0.52	0.25	0.1	Spherical disc	Figure 7.3
1931	73	se	XCH	yellow	0.59	0.57	0.12	Spherical disc	
1933	320	ne	XCV	Pale green	0.42	0.44	0.07	Spherical disc	
1934	339	ne	LXXXVII	Pale blue	0.32	0.3	0.03	Spherical disc	
1936	340	se	LXXXVII	yellow	0.39	0.44	0.06	Spherical disc	
1937	340	se	LXXXVII	Pale green	0.43	0.62	0.26	Spherical disc	Figure 7.3
1941	340	se	LXXXVII	yellow	0.47	0.47	0.13	Disc	

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
1943	310	se	XCIII	Pale green	0.56	0.6	0.13	Spherical disc
1945	334	ne	XCV	White	0.49	0.46	0.9	Spherical disc
1947	320	ne	XCV	Pale blue	chips		0.02	Undiagnostic
1952	325	ne	XCV	Dark blue	0.48	0.52	0.25	Spherical disc
1957	73	se	XCII	Pale green	0.62	0.45	0.05	Collared sphere
1963	73	sw	XCII	Pale blue	0.4	0.55	0.13	Sphere
1964	334	ne	XCV	Pale blue	0.3	0.42	0.06	Spherical disc
1968	73	sw	XCII	Pale blue	1.1	1.66	3.25	Collared sphere
1994	343	nw	XCV	Dark green	0.37	0.42	0.07	Spherical disc
1998	306	sw	XCIII	Pale blue	0.37	0.42	0.06	Spherical disc
2002	304	ne	XCIII	Pale blue	1.25	0.53	0.42	Elliptical
2003	304	ne	XCIII	Orange	1.36	1.35	2.41	Collared sphere
2004	304	ne	XCIII	Pale green	0.87	0.84	0.6	Collared sphere
2005	304	ne	XCIII	yellow	0.4	0.66	0.22	Spherical disc
2006	304	ne	XCIII	yellow	0.37	0.6	0.15	Spherical disc
2007	304	ne	XCIII	yellow	0.4	0.67	0.21	Spherical disc
2008	304	ne	XCIII	yellow	0.36	0.53	0.13	Spherical disc
2009	304	ne	XCIII	yellow	0.39	0.5	0.12	Spherical disc
2010	304	ne	XCIII	yellow	0.41	0.44	0.11	Spherical disc
2011	304	ne	XCIII	yellow	0.25	0.45	0.06	Spherical disc
2012	304	ne	XCIII	yellow	chip x1		0.05	Spherical disc
2013	304	ne	XCIII	yellow	0.5	0.4	0.1	Tube
2014	304	ne	XCIII	Pale green	0.38	0.52	0.12	Spherical disc
2015	304	ne	XCIII	Dark blue	0.41	0.56	0.17	Spherical disc
2016	304	ne	XCIII	Red	0.46	0.59	0.2	Spherical disc
2017	304	ne	XCIII	Orange	0.34	0.55	0.13	Spherical disc
2018	304	ne	XCIII	Pale green	0.37	0.6	0.16	Spherical disc
2019	304	ne	XCIII	Orange	0.28	0.57	0.13	Spherical disc
2020	304	ne	XCIII	Orange	0.36	0.47	0.11	Spherical disc
2021	304	ne	XCIII	Orange	0.3	0.5	0.1	Spherical disc
2022	304	ne	XCIII	Dark blue	0.42	0.47	0.13	Spherical disc
2023	304	ne	XCIII	Orange	0.35	0.49	0.05	Spherical disc
2024	304	ne	XCIII	Pale green	0.31	0.43	0.07	Spherical disc
2025	304	ne	XCIII	Dark green	0.33	0.43	0.08	Spherical disc
2026	304	ne	XCIII	Pale green	0.45	0.62	0.14	Spherical disc
2027	304	ne	XCIII	yellow	0.17	0.63	0.11	Spherical disc
2029	304	ne	XCIII	Pale green	chip x1		0.03	Spherical disc
2030	304	ne	XCIII	Pale green	chip x1		0.04	Spherical disc
2031	304	ne	XCIII	Pale green	chip x1		0.04	Spherical disc
2032	304	ne	XCIII	Pale green	chip x1		0.03	Spherical disc
2033	304	ne	XCIII	Pale green	chip x1		0.06	Spherical disc
2034	304	ne	XCIII	Pale green	chip x1		0.03	Spherical disc
2035	304	ne	XCIII	Pale green	0.78	0.59	0.22	Collared sphere
2036	304	ne	XCIII	yellow	1	0.7	0.37	Collared sphere
2037	304	ne	XCIII	Pale green	0.6	0.89	0.57	Elliptical
2038	304	ne	XCIII	yellow	chips x4		0.07	Spherical disc
2039	304	ne	XCIII	Red	0.47	0.33	0.06	Tube
2043	281	sw	XCV	Dark blue	bead	x112	3.24	Elliptical
2077	306	se	XCIII	Pale green	1.25	1.2	1.71	Collared sphere
2079	306	se	XCIII	Pale green	0.4	0.47	0.13	Spherical disc
2080	306	se	XCIII	Pale green	0.25	0.5	0.08	Spherical disc
2081	306	se	XCIII	Pale green	0.28	0.36	0.05	Spherical disc
2082	306	se	XCIII	Pale green	chip x1		0.02	Spherical disc
2083	306	se	XCIII	Dark green	0.3	0.45	0.09	Spherical disc
2084	306	se	XCIII	Dark green	0.24	0.32	0.04	Spherical disc
2085	306	se	XCIII	yellow	0.23	0.4	0.06	Spherical disc
2087	306	se	XCIII	Dark blue	0.24	0.44	0.05	Spherical disc
2088	306	se	XCIII	Pale blue	0.3	0.35	0.05	Spherical disc
2089	306	se	XCIII	Dark blue	0.3	0.4	0.06	Spherical disc
2090	306	se	XCIII	Orange	0.4	0.48	0.13	Spherical disc
2091	306	se	XCIII	Orange	0.26	0.5	0.1	Spherical disc
2092	306	se	XCIII	Red	0.27	0.41	0.06	Spherical disc
2093	306	se	XCIII	Red	0.2	0.36	0.04	Spherical disc
2095	306	se	XCIII	Red	0.55	0.4	0.13	Tube
2096	306	se	XCIII	yellow	0.22	0.33	0.03	Spherical disc
2114	185	se	XCII	Orange	0.25	0.55	0.14	Spherical disc
2115	306	sw	XCIII	Pale green	0.35	0.52	0.32	Spherical disc
2116	306	sw	XCIII	Pale green	0.35	0.65	0.42	Spherical disc
2117	306	sw	XCIII	Orange	0.3	0.7	0.39	Spherical disc
2118	306	sw	XCIII	Red	0.1	0.4	0.03	Disc
2121	316	ne	XCV	yellow	0.7	0.38	0.11	Elliptical
2126	318	se	XCV	Pale green	0.35	0.47	0.12	Spherical disc
2134	287	se	XCV	Pale blue	0.7	0.5	0.16	Collared sphere
2141	306	se	XCIII	Pale green	frags		0.24	Undiagnostic
2143	306	se	XCIII	Red	chip x1		0.04	Undiagnostic
2156	324	ne	XCV	yellow	0.22	0.46	0.07	Spherical disc
2157	324	ne	XCV	Orange	0.42	0.44	0.12	Spherical disc
2158	328	ne	XCV	Pale green	0.32	0.33	0.04	Spherical disc
2159	328	ne	XCV	Black	chip x1		0.05	Spherical disc
2160	326	ne	XCV	Orange	0.28	0.38	0.04	Spherical disc
2161	326	ne	XCV	Orange	0.32	0.47	0.11	Tube
2162	324	ne	XCV	Orange	0.33	0.48	0.1	Spherical disc

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
2163	324	ne	XCV	Orange	0.18	0.53	0.07	Spherical disc
2164	324	ne	XCV	Orange	0.26	0.34	0.04	Spherical disc
2165	324	ne	XCV	Orange	0.31	0.45	0.05	Spherical disc
2166	324	ne	XCV	Pale green	0.26	0.4	0.06	Spherical disc
2167	324	ne	XCV	Pale green	0.23	0.36	0.04	Spherical disc
2168	324	ne	XCV	Dark green	0.16	0.35	0.04	Spherical disc
2169	324	ne	XCV	Pale blue	0.25	0.38	0.03	Spherical disc
2172	324	ne	XCV	yellow	0.25	0.46	0.08	Spherical disc
2173	324	ne	XCV	Orange	0.4	0.5	0.14	Spherical disc
2174	324	ne	XCV	Orange	0.15	0.33	0.02	Spherical disc
2177	316	ne	XCV	yellow	0.2	0.4	0.03	Spherical disc
2178	316	ne	XCV	yellow	0.33	0.36	0.06	Spherical disc
2179	316	ne	XCV	Pale green	0.2	0.3	0.02	Spherical disc
2180	316	ne	XCV	Orange	0.35	0.78	0.19	Spherical disc
2181	316	ne	XCV	Orange	0.25	0.4	0.05	Spherical disc
2182	316	ne	XCV	Orange	0.22	0.36	0.03	Spherical disc
2183	316	ne	XCV	Orange	0.2	0.3	0.02	Spherical disc
2184	316	ne	XCV	Orange	0.2	0.27	0.02	Spherical disc
2185	316	ne	XCV	Pale blue	0.28	0.31	0.03	Spherical disc
2186	316	ne	XCV	Pale blue	0.22	0.52	0.07	Spherical disc
2187	316	ne	XCV	Dark blue	0.26	0.42	0.06	Spherical disc
2188	316	ne	XCV	Dark blue	0.3	0.4	0.05	Spherical disc
2189	316	ne	XCV	Orange	0.42	0.37	0.08	Tube
2190	316	ne	XCV	Pale blue	0.6	0.27	0.04	Tube
2196	320	ne	XCV	Red	0.13	1	0.15	Disc
2197	320	ne	XCV	yellow	0.11	0.52	0.06	Disc
2213	335	ne	XCV	Pale green	chip x1		0.22	Elliptical
2214	322	nw	XCV	Pale green	0.32	0.5	0.1	Spherical disc
2215	322	nw	XCV	Orange	0.5	0.37	0.1	Tube
2221	324	ne	XCV	Pale green	0.5	0.4	0.1	Tube
2222	324	ne	XCV	Orange	0.29	0.34	0.03	Spherical disc
2227	369	se	XCIII	Dark blue	0.66	0.41	0.16	Tube
2238	369	se	XCIII	Pale green	0.47	0.53	0.13	Spherical disc
2239	366	se	XCII	Pale green	0.13	0.51	0.08	Disc
2240	366	se	XCII	Pale green	0.21	0.59	0.08	Disc
2241	366	se	XCII	yellow	0.13	0.65	0.07	Disc
2287	254	se	XCV	Pale green	1.55	1.25	1.3	Undiagnostic
2296	325	ne	XCV	Orange	0.24	0.78	0.17	Spherical disc
2297	325	ne	XCV	Orange	0.33	0.65	0.11	Spherical disc
2298	325	ne	XCV	Dark green	0.41	0.58	0.14	Spherical disc
2299	325	ne	XCV	Red	0.22	0.45	0.04	Spherical disc
2300	325	ne	XCV	Pale green	0.24	0.43	0.06	Spherical disc
2302	325	ne	XCV	yellow	0.31	0.55	0.11	Spherical disc
2303	325	ne	XCV	yellow	0.38	0.42	0.08	Spherical disc
2304	325	ne	XCV	yellow	0.3	0.34	0.06	Spherical disc
2307	325	ne	XCV	Pale green	0.5	0.48	0.15	Tube
2308	325	ne	XCV	Pale green	0.3	0.4	0.07	Spherical disc
2309	325	ne	XCV	Dark green	0.22	0.34	0.04	Spherical disc
2310	325	ne	XCV	Pale green	0.16	0.26	0.02	Spherical disc
2311	325	ne	XCV	Pale blue	0.35	0.38	0.07	Spherical disc
2313	325	ne	XCV	Pale green	chips x4		0.32	Spherical disc
2314	325	ne	XCV	Red&orange	0.3	0.41	0.06	Spherical disc
2315	325	ne	XCV	Orange	0.28	0.3	0.04	Spherical disc
2317	325	ne	XCV	Red	0.38	0.38	0.07	Spherical disc
2318	325	ne	XCV	Orange	0.24	0.33	0.04	Spherical disc
2319	325	ne	XCV	Orange	0.28	0.31	0.04	Spherical disc
2322	325	ne	XCV	Orange	0.29	0.4	0.04	Spherical disc
2323	325	ne	XCV	Orange	0.23	0.35	0.05	Spherical disc
2353	324	ne	XCV	Dark blue	0.55	0.65	0.28	Sphere
2354	262	se	XCV	Pale green	chips x3		0.04	Undiagnostic
2357	285	se	XCV	yellow	0.26	0.38	0.06	Spherical disc
2358	285	se	XCV	Red	0.28	0.31	0.04	Tube
2359	285	se	XCV	Orange	0.2	0.3	0.03	Spherical disc
2360	324	ne	XCV	Orange	0.4	0.61	0.16	Spherical disc
2361	324	ne	XCV	Orange	0.26	0.4	0.05	Spherical disc
2362	324	ne	XCV	Pale blue	0.52	0.45	0.11	Tube
2363	324	ne	XCV	Red	0.23	0.36	0.03	Tube
2366	262	se	XCV	Pale blue	0.45	0.38	0.08	Tube
2383	358	nw	XCIII	Pale green	chip x1		0.11	Coloured sphere
2430	368	nw	XCV	Pale blue	0.27	0.41	0.08	Spherical disc
2431	368	nw	XCV	Pale green	0.28	0.37	0.04	Spherical disc
2432	368	nw	XCV	Pale blue	chip x1		0.02	Spherical disc
2433	366	se	XCII	Pale green	0.38	0.54	0.14	Spherical disc
2435	274	se	XCV	Orange	0.14	0.42	0.02	Spherical disc
2436	274	se	XCV	Orange	0.44	0.41	0.09	Spherical disc
2437	374	sw	XCIII	Pale green	chip x1		0.26	Elliptical
2438	374	sw	XCIII	Pale green	0.31	0.67	0.17	Spherical disc
2439	374	sw	XCIII	Orange	0.3	0.54	0.1	Spherical disc
2440	374	sw	XCIII	Orange	0.28	0.48	0.09	Spherical disc
2441	374	sw	XCIII	Black	0.41	0.48	0.18	Spherical disc
2445	364	ne	XCII	Dark blue	0.41	0.5	0.13	Spherical disc
2446	364	ne	XCII	Dark blue	0.24	0.36	0.03	Spherical disc

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
2447	364	ne	XCII	Black	0.42	0.55	0.07	Spherical disc
2448	364	ne	XCII	Pale blue	0.38	0.37	0.07	Spherical disc
2449	364	ne	XCII	Pale blue	0.57	0.43	0.14	Unperforated sphere
2450	364	ne	XCII	Pale green	0.36	0.42	0.08	Spherical disc
2453	364	ne	XCII	Orange	0.25	0.7	0.16	Spherical disc
2456	364	ne	XCII	Dark blue	0.9	0.7	0.47	Elliptical
2457	358	se	XCIII	Dark blue	1.1	0.97	0.87	Collared sphere
2458	358	se	XCIII	Pale green	0.48	0.75	0.33	Spherical disc
2459	358	se	XCIII	Pale green	0.31	0.62	0.13	Spherical disc
2460	358	se	XCIII	yellow	0.31	0.7	0.21	Spherical disc
2461	358	se	XCIII	Black	0.34	0.6	0.14	Spherical disc
2462	358	se	XCIII	Pale green	0.35	0.6	0.14	Spherical disc
2463	358	se	XCIII	Pale green	0.33	0.65	0.16	Spherical disc
2464	358	se	XCIII	yellow	0.31	0.37	0.05	Spherical disc
2465	358	se	XCIII	Pale green	0.32	0.62	0.14	Spherical disc
2467	358	se	XCIII	Pale green	0.42	0.41	0.09	Spherical disc
2468	358	se	XCIII	Pale green	0.46	0.62	0.22	Spherical disc
2469	358	se	XCIII	Black	0.34	0.5	0.11	Spherical disc
2470	358	se	XCIII	yellow	0.4	0.49	0.13	Spherical disc
2471	358	se	XCIII	Pale blue	0.98	0.77	0.32	Collared sphere
2472	358	se	XCIII	Pale green	0.5	0.69	0.26	Spherical disc
2473	358	se	XCIII	Pale green	0.47	0.53	0.16	Spherical disc
2474	358	se	XCIII	Pale green	0.35	0.64	0.18	Spherical disc
2475	358	se	XCIII	Pale green	0.43	0.61	0.21	Spherical disc
2476	358	se	XCIII	Black	0.4	0.51	0.12	Spherical disc
2477	358	se	XCIII	Pale green	0.31	0.56	0.12	Spherical disc
2478	358	se	XCIII	Pale blue	0.35	0.46	0.08	Spherical disc
2479	358	se	XCIII	Pale green	0.4	0.64	0.21	Spherical disc
2480	358	se	XCIII	yellow	0.35	0.67	0.21	Spherical disc
2481	358	se	XCIII	Orange	0.37	0.46	0.11	Spherical disc
2482	358	se	XCIII	Pale green	0.28	0.62	0.13	Spherical disc
2483	358	se	XCIII	Orange	0.3	0.56	0.11	Spherical disc
2484	358	se	XCIII	Pale green	0.36	0.44	0.1	Spherical disc
2485	358	se	XCIII	White	0.4	0.56	0.1	Spherical disc
2486	358	se	XCIII	White	0.33	0.37	0.06	Spherical disc
2487	358	se	XCIII	Pale green	0.32	0.41	0.04	Spherical disc
2488	358	se	XCIII	Dark green	0.29	0.49	0.09	Spherical disc
2489	358	se	XCIII	yellow	0.24	0.44	0.05	Spherical disc
2490	358	se	XCIII	Orange	0.37	0.42	0.07	Spherical disc
2491	358	se	XCIII	Orange	0.34	0.42	0.07	Spherical disc
2492	358	se	XCIII	Orange	0.18	0.52	0.05	Spherical disc
2493	358	se	XCIII	yellow	0.31	0.4	0.05	Spherical disc
2494	358	se	XCIII	Pale green	0.35	0.65	0.09	Spherical disc
2495	358	se	XCIII	Pale blue	0.27	0.42	0.04	Spherical disc
2496	358	se	XCIII	Pale blue	0.27	0.4	0.04	Spherical disc
2497	358	se	XCIII	Orange	0.33	0.52	0.11	Spherical disc
2498	358	se	XCIII	Orange	0.38	0.45	0.09	Spherical disc
2499	358	se	XCIII	Orange	0.2	0.37	0.03	Spherical disc
2500	306	sw	XCIII	Pale green	1	1.06	1.02	Collared sphere
2501	306	sw	XCIII	Pale green	0.88	0.76	0.35	Collared sphere
2503	306	sw	XCIII	Orange	0.3	0.31	0.03	Spherical disc
2506	334	ne	XCV	Dark blue	0.31	0.36	0.05	Spherical disc
2508	344	nw	XCV	yellow	0.3	0.42	0.07	Spherical disc
2512	306	sw	XCIII	Pale green	0.27	0.45	0.05	Spherical disc
2513	306	sw	XCIII	Pale green	0.13	0.2	0.01	Spherical disc
2521	344	nw	XCV	Orange	0.4	0.6	0.21	Spherical disc
2524	73	nw	XCII	Dark blue	1.05	0.8	0.54	Collared sphere
2526	345	sw	XCIII	Pale green	0.4	0.55	0.15	Spherical disc
2530	263	sw	XCV	Dark green	0.44	0.68	0.31	Spherical disc
2536	345	sw	XCIII	White	1.48	1.3	1.98	Collared sphere
2537	73	sw	XCII	Dark green	frag		1.7	Collared sphere
2539	345	sw	XCIII	yellow	0.26	0.44	0.08	Spherical disc
2541	345	sw	XCIII	Pale green	0.95	0.94	0.59	Collared sphere
2542	345	sw	XCIII	Dark green	0.25	0.52	0.09	Spherical disc
2545	345	sw	XCIII	Orange	0.24	0.37	0.06	Spherical disc
2548	73	sw	XCII	Pale green	chips		0.66	Collared sphere
2549	345	sw	XCIII	Dark green	0.12	0.27	0.01	Elliptical
2554	73	sw	XCII	Pale green	0.43	0.24	0.05	Elliptical
2555	73	sw	XCII	Pale green	0.39	0.33	0.03	Spherical disc
2561	73	sw	XCII	Pale blue	0.23	0.38	0.04	Sphere
2565	73	sw	XCII	Pale green	0.63	0.41	0.09	Tube
2566	73	sw	XCII	Pale green	0.24	0.46	0.07	Spherical disc
2574	73	sw	XCII	yellow	crushed	chips	0.02	Undiagnostic
2575	350	nw	XCV	Dark green	0.36	0.61	0.17	Spherical disc
2576	376	nw	LXXXVI	Pale blue	chips x3		0.12	Spherical disc
2577	345	sw	XCIII	Pale green	1.3	1.1	0.69	Collared sphere
2577	376	nw	LXXXVI	Orange	0.12	0.38	0.01	Spherical disc
2578	376	nw	LXXXVI	Red	0.3	0.56	0.12	Spherical disc
2579	73	sw	XCII	Pale blue	0.63	0.71	0.47	Sphere
2579	376	nw	LXXXVI	Black	0.3	0.62	0.16	Spherical disc
2581	380	nw	XCV	Pale green	chip x1		0.41	Undiagnostic
2585	291	ne	XCV	Red	1.02	0.41	0.27	Tube

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape	
2586	73	sw	XCII	Pale blue	0.41	0.33	0.06	Spherical disc	
2587	361	nw	XCII	Red	0.27	0.54	0.09	Spherical disc	
2589	355	ne	XCIII	Red	chip x1		0.01	Spherical disc	
2591	359	nw	XCV	Pale blue	0.27	0.39	0.03	Spherical disc	
2593	356	nw	XCV	Purple	0.48	0.61	0.22	Unperforated sphere	Figure 7.3
2595	73	sw	XCII	Dark blue	0.85	0.6	0.63	Undiagnostic	
2596	73	sw	XCII	Pale blue	0.55	0.4	0.14	Tube	
2601	250	sw	XCV	Pale blue	0.18	0.33	0.01	Spherical disc	
2603	73	ne	XCII	Red	0.3	0.54	0.09	Spherical disc	
2605	356	nw	XCV	Dark blue	0.13	0.37	0.01	Spherical disc	
2606	73	sw	XCII	Pale blue	0.2	0.4	0.05	Spherical disc	
2607	73	sw	XCII	Pale green	0.15	0.27	0.01	Spherical disc	
2618	73	sw	XCII	yellow	0.4	0.5	0.13	Spherical disc	
2630	292	ne	XCV	Pale green	chip x1		0.7	Undiagnostic	
2632	292	ne	XCV	Dark green	frags		0.03	Undiagnostic	
2633	359	nw	XCV	Pale green	0.21	0.46	0.07	Spherical disc	
2636	251	sw	XCV	Pale blue	0.34	0.39	0.05	Spherical disc	
2637	251	sw	XCV	Pale green	0.85	1.2	1.39	Collared sphere	
2638	251	sw	XCV	Dark blue	1.2	1.45	2.44	Collared sphere	
2640	251	sw	XCV	Pale blue	0.43	0.5	0.12	Spherical disc	
2643	251	sw	XCV	Pale green	1.07	1.34	1.14	Collared sphere	
2644	73	sw	XCII	Pale blue	0.33	0.5	0.1	Spherical disc	
2647	256	nw	XCV	Pale green	0.33	0.6	0.1	Spherical disc	
2651	345	sw	XCIII	Pale blue	0.24	0.33	0.03	Spherical disc	
2656	359	nw	XCV	Pale blue	0.43	0.45	0.09	Spherical disc	
2668	73	se	XCII	Pale green	0.13	0.24	negl	Spherical disc	
2669	356	ne	XCV	Pale green	chip x1		0.01	Undiagnostic	
2672	292	ne	XCV	Orange	0.13	0.48	0.05	Spherical disc	
2680	292	ne	XCV	Red	0.3	0.45	0.1	Spherical disc	
2684	366	se	XCII	Pale green	0.31	0.44	0.08	Spherical disc	
2685	365	nw	XCII	Pale blue	0.36	0.45	0.12	Spherical disc	
2699	365	nw	XCII	yellow	0.12	0.21	negl	Spherical disc	
2703	363	ne	XCIII	Pale green	crushed	chips	1.8	Undiagnostic	
2704	363	ne	XCIII	Pale green	0.08	0.35	0.01	Spherical disc	
2707	369	se	XCIII	Pale green	0.35	0.47	0.11	Spherical disc	
2708	73	ne	XCII	Pale green	chips x4		0.03	Spherical disc	
2719	369	se	XCIII	Pale blue	0.4	0.5	0.13	Spherical disc	
2723	370	se	XCIII	Pale blue	0.27	0.42	0.05	Spherical disc	
2724	370	se	XCIII	yellow	0.96	1.1	1.05	Collared sphere	
2725	366	se	XCII	Pale green	0.36	0.6	0.12	Spherical disc	
2730	366	se	XCII	Pale green	0.37	0.64	0.23	Spherical disc	
2732	368	nw	XCV	Orange	0.54	0.75	0.34	Tube	
2741	368	ne	XCV	Pale green	0.3	0.36	0.07	Spherical disc	
2742	363	ne	XCIII	Dark blue	0.37	0.54	0.16	Spherical disc	
2753	363	ne	XCIII	Pale green	0.31	0.55	0.15	Spherical disc	
2755	363	ne	XCIII	Pale green	0.75	0.53	0.21	Collared sphere	
2760	368	nw	XCV	Pale green	0.12	0.54	0.06	Disc	
2771	368	ne	XCV	Pale green	frag		negl	Undiagnostic	
2772	298	ne	XCV	Dark blue	0.18	0.38	0.04	Spherical disc	
2788	369	se	XCIII	Dark blue	0.92	0.88	0.87	Collared sphere	
2792	365	nw	XCII	Pale blue	0.38	0.48	0.12	Spherical disc	
2800	373	nw	XCV	Pale blue	0.16	0.36	0.03	Disc	
2801	373	nw	XCV	Pale green	frags		0.01	Undiagnostic	
2807	358	se	XCIII	Dark green	0.12	0.57	0.05	Disc	
2810	374	nw	XCIII	Orange	0.23	0.41	0.05	Spherical disc	
2811	374	nw	XCIII	Orange	0.31	0.36	0.06	Spherical disc	
2813	373	ne	XCV	Dark blue	chip x1		0.87	Collared sphere	
2818	358	se	XCIII	yellow	0.35	0.36	0.05	Spherical disc	
2819	358	se	XCIII	Pale green	0.2	0.38	0.04	Spherical disc	
2820	358	se	XCIII	Pale green	0.21	0.54	0.08	Spherical disc	
2821	374	nw	XCIII	Pale blue	0.43	0.5	0.15	Spherical disc	
2822	374	nw	XCIII	Dark green	0.47	0.64	0.28	Spherical disc	
2824	364	ne	XCII	yellow	0.23	0.43	0.05	Spherical disc	
2827	358	se	XCIII	yellow	0.31	0.32	0.03	Spherical disc	
2827	358	se	XCIII	yellow	0.3	0.6	0.13	Spherical disc	
2834	373	nw	XCV	Dark blue	0.88	0.95	0.7	Truncated bicone	
2847	364	ne	XCII	Pale green	chips x4		0.07	Spherical disc	
2855	374	nw	XCIII	Dark green	chip x1		0.06	Spherical disc	
2856	374	nw	XCIII	Pale green	0.12	0.22	negl	Spherical disc	
2858	364	ne	XCII	Black	eroded	chips	7.41	Undiagnostic	
2860	375	ne	LXXXVIII	Pale green	chip x1		0.06	Collared sphere	
2862	375	nw	LXXXVIII	Pale green	0.38	0.43	0.1	Spherical disc	
2876	375	nw	LXXXVIII	Orange	0.25	0.51	0.07	Spherical disc	
2878	365	nw	XCII	Pale green	chip x1		0.04	Spherical disc	
2893	365	nw	XCII	Pale green	crushed	chips	0.26	Undiagnostic	
2894	365	nw	XCII	Pale green	0.47	0.55	0.14	Spherical disc	
2906	304	ne	XCIII	Pale green	0.3	0.42	0.06	Spherical disc	
2908	304	ne	XCIII	Pale blue	0.4	0.38	0.08	Spherical disc	
2912	367	sw	XCII	Pale green	1	0.8	0.35	Collared sphere	
2913	367	sw	XCII	Pale green	0.34	0.5	0.11	Spherical disc	
2915	367	sw	XCII	Pale green	1.1	1.1	0.93	Collared sphere	
2917	367	sw	XCII	Pale green	chip x1		1.2	Undiagnostic	

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
2732	368	nw	XCV	Orange	0.54	0.75	0.34	Tube
2741	368	ne	XCV	Pale green	0.3	0.36	0.07	Spherical disc
2742	363	ne	XCIII	Dark blue	0.37	0.54	0.16	Spherical disc
2753	363	ne	XCIII	Pale green	0.31	0.55	0.15	Spherical disc
2755	363	ne	XCIII	Pale green	0.75	0.53	0.21	Collared sphere
2760	368	nw	XCV	Pale green	0.12	0.54	0.06	Disc
2771	368	ne	XCV	Pale green	frag		negl	Undiagnostic
2772	298	ne	XCV	Dark blue	0.18	0.38	0.04	Spherical disc
2788	369	se	XCIII	Dark blue	0.92	0.88	0.87	Collared sphere
2792	365	nw	XCI	Pale blue	0.38	0.48	0.12	Spherical disc
2800	373	nw	XCV	Pale blue	0.16	0.36	0.03	Disc
2801	373	nw	XCV	Pale green	frags		0.01	Undiagnostic
2807	358	se	XCIII	Dark green	0.12	0.57	0.05	Disc
2810	374	nw	XCIII	Orange	0.23	0.41	0.05	Spherical disc
2811	374	nw	XCIII	Orange	0.31	0.36	0.06	Spherical disc
2813	373	ne	XCV	Dark blue	chip x1		0.87	Collared sphere
2818	358	se	XCIII	yellow	0.35	0.36	0.05	Spherical disc
2819	358	se	XCIII	Pale green	0.2	0.38	0.04	Spherical disc
2820	358	se	XCIII	Pale green	0.21	0.54	0.08	Spherical disc
2821	374	nw	XCIII	Pale blue	0.43	0.5	0.15	Spherical disc
2822	374	nw	XCIII	Dark green	0.47	0.64	0.28	Spherical disc
2824	364	ne	XCI	yellow	0.23	0.43	0.05	Spherical disc
2827	358	se	XCIII	yellow	0.31	0.32	0.03	Spherical disc
2827	358	se	XCIII	yellow	0.3	0.6	0.13	Spherical disc
2834	373	nw	XCV	Dark blue	0.88	0.95	0.7	Truncated bicone
2847	364	ne	XCI	Pale green	chips x4		0.07	Spherical disc
2855	374	nw	XCIII	Dark green	chip x1		0.06	Spherical disc
2856	374	nw	XCIII	Pale green	0.12	0.22	negl	Spherical disc
2858	364	ne	XCI	Black	eroded	chips	7.41	Undiagnostic
2860	375	ne	LXXXVIII	Pale green	chip x1		0.06	Collared sphere
2862	375	nw	LXXXVIII	Pale green	0.38	0.43	0.1	Spherical disc
2876	375	nw	LXXXVIII	Orange	0.25	0.51	0.07	Spherical disc
2878	365	nw	XCI	Pale green	chip x1		0.04	Spherical disc
2893	365	nw	XCI	Pale green	crushed	chips	0.26	Undiagnostic
2894	365	nw	XCI	Pale green	0.47	0.55	0.14	Spherical disc
2906	304	ne	XCIII	Pale green	0.3	0.42	0.06	Spherical disc
2908	304	ne	XCIII	Pale blue	0.4	0.38	0.08	Spherical disc
2912	367	sw	XCI	Pale green	1	0.8	0.35	Collared sphere
2913	367	sw	XCI	Pale green	0.34	0.5	0.11	Spherical disc
2915	367	sw	XCI	Pale green	1.1	1.1	0.93	Collared sphere
2917	367	sw	XCI	Pale green	chip x1		1.2	Undiagnostic
5027	304	ne	XCIII	Pale green	0.4	0.5	0.13	Spherical disc
5029	304	ne	XCIII	yellow	0.3	0.3	0.05	Spherical disc
5030	304	ne	XCIII	yellow	0.27	0.47	0.08	Spherical disc
5031	304	ne	XCIII	Pale green	0.45	0.47	0.13	Spherical disc
5032	304	ne	XCIII	Pale green	0.48	0.42	0.13	Spherical disc
5033	304	ne	XCIII	yellow	0.28	0.6	0.11	Spherical disc
5034	304	ne	XCIII	Pale green	0.46	0.46	0.13	Spherical disc
5035	304	ne	XCIII	Pale green	chips x2		0.2	Undiagnostic
5036	304	ne	XCIII	Pale green	0.7	0.64	0.24	Collared sphere
5037	304	ne	XCIII	yellow	0.8	0.45	0.23	Elliptical
5040	365	nw	XCI	Pale green	0.7	0.68	0.25	Collared sphere
5041	304	ne	XCIII	Pale green	0.36	0.46	0.1	Spherical disc
5042	304	ne	XCIII	Pale green	0.3	0.55	0.14	Spherical disc
5043	304	ne	XCIII	Pale green	0.36	0.46	0.11	Spherical disc
5044	304	ne	XCIII	Pale green	0.25	0.45	0.06	Spherical disc
5045	304	ne	XCIII	Dark green	0.3	0.35	0.05	Spherical disc
5046	304	ne	XCIII	yellow	0.37	0.48	0.14	Spherical disc
5047	304	ne	XCIII	yellow	0.36	0.42	0.11	Spherical disc
5048	304	ne	XCIII	Orange	0.43	0.48	0.14	Spherical disc
5049	304	ne	XCIII	Red	0.3	0.55	0.12	Spherical disc
5055	369	se	XCIII	Pale blue	0.2	0.52	0.07	Spherical disc
5056	369	se	XCIII	Pale green	chip x1		0.1	Spherical disc
5060	306	se	XCIII	Dark blue	0.56	0.28	0.12	Triangular spacer
5065	304	ne	XCIII	Red	0.55	0.48	0.2	Spherical disc
5066	304	ne	XCIII	Pale green	0.4	0.42	0.1	Spherical disc
5067	304	ne	XCIII	Pale green	0.18	0.29	0.02	Spherical disc
5068	304	ne	XCIII	Pale green	0.45	0.65	0.17	Spherical disc
5069	304	ne	XCIII	Pale green	chips x3		0.07	Spherical disc
5070	304	ne	XCIII	Pale green	chip x1		0.07	Collared sphere
5073	365	nw	XCI	Dark blue	0.6	0.5	0.1	Spherical disc
5075	304	ne	XCIII	Pale green	1.3	1.35	2.37	Collared sphere
5076	304	ne	XCI	Pale blue	chips x4		0.82	Undiagnostic
5077	304	ne	XCI	Pale blue	1.5	1.6	3.83	Collared sphere
5078	304	ne	XCI	Pale blue	1.15	1.55	2.65	Collared sphere
5079	304	ne	XCI	Pale green	1.1	0.88	0.78	Collared sphere
5080	304	ne	XCIII	Pale green	0.36	0.52	0.12	Spherical disc
5081	304	ne	XCIII	Pale green	0.37	0.44	0.1	Spherical disc
5082	304	ne	XCIII	Pale green	0.31	0.5	0.11	Spherical disc
5083	304	ne	XCIII	Pale blue	0.27	0.35	0.03	Spherical disc
5084	304	ne	XCIII	Pale green	0.22	0.5	0.07	Spherical disc
5088	304	ne	XCIII	Pale green	0.3	0.5	0.11	Spherical disc

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
5089	304	ne	XCIII	Pale green	0.35	0.5	0.13	Spherical disc
5090	304	ne	XCIII	Pale green	0.31	0.4	0.07	Spherical disc
5091	304	ne	XCIII	Pale green	0.3	0.44	0.07	Spherical disc
5092	304	ne	XCIII	Pale green	0.35	0.5	0.13	Spherical disc
5093	304	ne	XCIII	Pale green	0.35	0.45	0.1	Spherical disc
5094	304	ne	XCIII	Pale green	0.4	0.45	0.11	Spherical disc
5095	304	ne	XCIII	Pale green	0.2	0.52	0.07	Spherical disc
5096	304	ne	XCIII	Pale green	0.37	0.42	0.08	Spherical disc
5097	304	ne	XCIII	Dark green	0.24	0.36	0.04	Spherical disc
5102	304	ne	XCIII	Orange	0.33	0.57	0.15	Spherical disc
5103	304	ne	XCIII	Orange	0.24	0.3	0.03	Spherical disc
5104	304	ne	XCIII	Red	0.42	0.47	0.12	Spherical disc
5105	304	ne	XCIII	Red	0.3	0.45	0.09	Spherical disc
5106	304	ne	XCIII	Red	0.4	6	0.16	Spherical disc
5107	304	ne	XCIII	Red	0.18	0.2	0.01	Spherical disc
5108	304	ne	XCIII	Red	0.35	0.5	0.1	Spherical disc
5109	304	ne	XCIII	Red	0.15	0.37	0.03	Spherical disc
5110	304	ne	XCIII	Red	0.27	0.33	0.05	Spherical disc
5111	304	ne	XCIII	Red	0.3	0.35	0.06	Spherical disc
5112	304	ne	XCIII	Pale blue	0.65	0.38	0.13	Tube
5113	304	ne	XCIII	Pale green	0.5	0.35	0.06	Tube
5114	304	ne	XCIII	Red	0.5	0.35	0.1	Tube
5115	304	ne	XCIII	Red	0.7	0.32	0.11	Tube
5116	304	ne	XCIII	Red	0.5	0.3	0.06	Tube
5117	304	ne	XCIII	Pale blue	0.3	0.4	0.05	Tube
5118	304	ne	XCIII	Pale blue	0.2	0.35	0.04	Tube
5119	304	ne	XCIII	Pale blue	0.35	0.4	0.09	Tube
5120	304	ne	XCIII	Orange	0.3	0.6	0.15	Tube
5121	304	ne	XCIII	Orange	0.1	0.2	0.01	Tube
5122	304	ne	XCIII	Orange	0.15	0.15	0.01	Tube
5123	304	ne	XCIII	Pale green	0.32	0.5	0.13	Tube
5124	304	ne	XCIII	Dark green	0.3	0.65	0.22	Tube
5125	304	ne	XCIII	Dark green	0.35	0.5	0.13	Tube
5126	304	ne	XCIII	Pale green	1.35	1.5	2.55	Collared sphere
5127	304	ne	XCIII	Pale green	0.7	0.5	0.11	Collared sphere
5128	304	ne	XCIII	Pale green	0.8	0.75	0.29	Collared sphere
5129	304	ne	XCIII	yellow	0.7	0.7	0.38	Collared sphere
5130	304	ne	XCIII	yellow	0.5	0.4	0.08	Hexagonal prism
5131	304	ne	XCIII	Pale green	chips x3		0.4	Undiagnostic
5132	304	ne	XCIII	Brown	1.3	1.47	2.6	Squashed collared sphere
5133	304	ne	XCIII	Brown	1.2	1.65	3.18	Squashed collared sphere
5134	304	ne	XCIII	Dark green	1.7	1.7	5.05	Squashed collared sphere
5135	304	ne	XCIII	Pale blue	1	1.25	1.57	Notched & collared sphere
5136	304	ne	XCIII	Black	1.1	1	0.96	Squashed collared sphere
5148	304	ne	XCIII	Pale blue	0.5	0.33	0.11	Spherical disc
5149	304	ne	XCIII	Orange	0.6	0.4	0.21	Spherical disc
5150	304	ne	XCIII	Orange	0.58	0.32	0.2	Spherical disc
5152	304	ne	XCIII	Orange	0.57	0.22	0.09	Spherical disc
5153	304	ne	XCIII	Pale green	0.46	0.3	0.11	Spherical disc
5154	304	ne	XCIII	Orange	0.72	0.5	0.43	Collared triangular barrel
5155	304	ne	XCIII	yellow	0.4	0.46	0.12	Spherical disc
5156	304	ne	XCIII	Red	0.47	0.5	0.19	Spherical disc
5157	304	ne	XCIII	Red	0.51	0.4	0.13	Spherical disc
5158	304	ne	XCIII	Red	0.5	0.42	0.14	Spherical disc
5159	304	ne	XCIII	Pale green	0.49	0.4	0.1	Spherical disc
5160	304	ne	XCIII	Pale green	0.44	0.45	0.12	Spherical disc
5161	304	ne	XCIII	Red	0.52	0.45	0.22	Spherical disc
5168	335	ne	XCV	Pale green	0.46	0.24	0.08	Spherical disc
5169	304	ne	XCIII	Red	0.54	0.38	0.15	Spherical disc
5170	304	ne	XCIII	Red	0.46	0.44	0.13	Spherical disc
5171	304	ne	XCIII	Pale green	0.41	0.46	0.13	Spherical disc
5172	304	ne	XCIII	Red	0.45	0.44	0.16	Spherical disc
5173	304	ne	XCIII	Pale green	0.44	0.32	0.07	Spherical disc
5174	304	ne	XCIII	Orange	0.37	0.4	0.1	Spherical disc
5175	304	ne	XCIII	Orange	0.45	0.27	0.09	Spherical disc
5176	304	ne	XCIII	yellow	0.57	0.31	0.05	Spherical disc
5177	304	ne	XCIII	Red	0.32	0.2	0.02	Spherical disc
5178	304	ne	XCIII	Pale green	0.45	0.37	0.11	Spherical disc
5179	304	ne	XCIII	Orange	0.41	0.25	0.06	Spherical disc
5180	304	ne	XCIII	Pale green	0.73	0.88	0.48	Notched & collared sphere
5181	304	ne	XCIII	Red	0.35	0.38	0.07	Spherical disc
5182	304	ne	XCIII	Pale green	0.46	0.34	0.09	Spherical disc
5190	304	ne	XCIII	yellow	0.37	0.36	0.09	Spherical disc
5191	304	ne	XCIII	Orange	0.37	0.24	0.05	Spherical disc
5192	304	ne	XCIII	Pale green	0.36	0.42	0.09	Spherical disc
5193	304	ne	XCIII	Pale green	0.39	0.34	0.09	Spherical disc
5194	304	ne	XCIII	Pale green	0.34	0.24	0.04	Spherical disc
5195	304	ne	XCIII	Pale green	0.48	0.36	0.1	Spherical disc
5196	304	ne	XCIII	Pale green	0.4	0.36	0.09	Spherical disc
5197	304	ne	XCIII	Pale blue	0.35	0.27	0.06	Spherical disc
5198	304	ne	XCIII	Orange	0.28	0.4	0.06	Spherical disc
5200	304	ne	XCIII	Pale green	0.59	0.4	0.14	Spherical disc

Figure 7.3

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
5201	304	ne	XCIII	Pale green	0.43	0.41	0.1	Spherical disc
5202	304	ne	XCIII	Red	0.4	0.2	0.06	Spherical disc
5203	304	ne	XCIII	Red	0.46	0.34	0.12	Spherical disc
5204	304	ne	XCIII	Red	0.46	0.4	0.18	Spherical disc
5205	304	ne	XCIII	Pale green	0.68	0.4	0.12	Spherical disc
5206	304	ne	XCIII	Pale green	0.38	0.22	0.05	Spherical disc
5207	304	ne	XCIII	Pale green	0.4	0.42	0.08	Spherical disc
5208	304	ne	XCIII	Red	0.3	0.82	0.13	Tube
5209	304	ne	XCIII	Red	0.43	0.36	0.12	Spherical disc
5210	304	ne	XCIII	Pale green	chips x4		0.96	Undiagnostic
5211	304	ne	XCIII	Red	0.48	0.3	0.09	Spherical disc
5212	304	ne	XCIII	Orange	0.45	0.22	0.04	Spherical disc
5213	304	ne	XCIII	Orange	0.24	0.18	negl	Spherical disc
5214	304	ne	XCIII	Red	0.41	0.28	0.09	Spherical disc
5215	304	ne	XCIII	Pale green	0.44	0.2	0.06	Spherical disc
5217	304	ne	XCIII	Pale green	0.41	0.25	0.06	Spherical disc
5218	304	ne	XCIII	Pale green	0.44	0.35	0.1	Spherical disc
5219	304	ne	XCIII	Pale green	0.44	0.25	0.08	Spherical disc
5230	304	ne	XCIII	Pale blue	0.47	0.46	0.11	Spherical disc
5231	304	ne	XCIII	Red	0.23	0.34	0.03	Spherical disc
5232	304	ne	XCIII	Pale green	0.33	0.42	0.08	Spherical disc
5233	304	ne	XCIII	Pale blue	0.32	0.41	0.06	Spherical disc
5234	304	ne	XCIII	Red	0.37	0.42	0.1	Spherical disc
5235	304	ne	XCIII	Pale green	0.19	0.31	0.02	Spherical disc
5236	304	ne	XCIII	Red	0.24	0.43	0.06	Spherical disc
5238	304	ne	XCIII	yellow	0.41	0.37	0.06	Spherical disc
5239	304	ne	XCIII	Pale green	0.31	0.51	0.09	Spherical disc
5240	304	ne	XCIII	Pale green	0.29	0.45	0.05	Spherical disc
5241	304	ne	XCIII	Red	0.16	0.29	0.02	Spherical disc
5242	304	ne	XCIII	Pale green	0.32	0.37	0.06	Spherical disc
5243	304	ne	XCIII	Red	0.13	0.34	0.02	Disc
5244	304	ne	XCIII	Black	0.33	0.74	0.19	Collared sphere
5250	370	se	XCIII	White	1.24	1.2	1.1	Collared sphere
5251	370	se	XCIII	White	0.96	1.03	0.68	Notched & collared sphere
5259	25	nw	XCVII	Pale green	0.17	0.29	0.02	Spherical disc
5260	25	nw	XCVII	Orange	0.28	0.31	0.03	Spherical disc
5261	73	sw	XCI	Orange	0.31	0.64	2.44	Spherical disc
5270	376	nw	LXXXVI	yellow	0.3	0.61	0.14	Spherical disc
5271	376	nw	LXXXVI	yellow	0.26	0.35	0.04	Spherical disc
5272	376	nw	LXXXVI	Pale blue	0.24	0.5	0.08	Spherical disc
5273	376	nw	LXXXVI	Pale blue	0.22	0.37	0.02	Spherical disc
5274	376	nw	LXXXVI	Red	0.3	0.44	0.07	Spherical disc
5275	376	nw	LXXXVI	Black	0.27	0.46	0.07	Spherical disc
5280	376	nw	LXXXVI	Black	0.38	0.4	0.08	Spherical disc
5281	376	nw	LXXXVI	Black	0.25	0.57	0.1	Spherical disc
5293	376	nw	LXXXVI	Red	chip x1		0.04	Disc
5314	386	nw	XCI	Pale blue	0.12	0.6	0.06	Disc
5315	386	nw	XCI	Orange	0.12	0.34	0.02	Spherical disc
5317	385	se	XCI	Pale green	crushed	chips	0.06	Undiagnostic
5318	313	sw	XCV	yellow	0.23	0.32	0.03	Spherical disc
5319	386	ne	XCI	Orange	0.2	0.5	0.08	Spherical disc
5320	386	ne	XCI	Pale green	0.15	0.3	0.01	Spherical disc
5348	182	se	XCV	Dark blue	1.26	1.1	0.85	Collared sphere
5356	416	ne	XCI	Red	0.12	0.87	0.24	Disc
5357	416	ne	XCI	Red	0.11	0.93	0.17	Disc
5358	416	ne	XCI	Red	0.16	0.98	0.29	Disc
5359	416	ne	XCI	Red	0.12	0.97	0.26	Disc
5360	416	ne	XCI	Red	0.1	0.91	0.13	Disc
5361	416	ne	XCI	Red	0.12	0.9	0.17	Disc
5362	416	ne	XCI	Red	0.11	0.76	0.14	Disc
5363	416	ne	XCI	Red	0.11	0.93	0.1	Disc
5381	600		XCV	Dark green	0.4	0.62	0.24	Spherical disc
5500	358	se	XCIII	White	0.32	0.32	0.03	Spherical disc
5501	358	se	XCIII	yellow	0.3	0.35	0.03	Spherical disc
5502	358	se	XCIII	Pale green	0.46	0.55	0.18	Spherical disc
5503	358	se	XCIII	Pale green	0.2	0.34	0.02	Spherical disc
5504	358	se	XCIII	Orange	0.38	0.42	0.09	Spherical disc
5505	358	se	XCIII	Orange	0.38	0.49	0.11	Spherical disc
5506	358	se	XCIII	Orange	0.42	0.48	0.1	Spherical disc
5507	358	se	XCIII	Orange	0.2	0.46	0.03	Spherical disc
5508	358	se	XCIII	Orange	0.26	0.42	0.06	Spherical disc
5509	358	se	XCIII	Pale green	0.35	0.5	0.11	Spherical disc
5510	358	se	XCIII	yellow	0.4	0.47	0.09	Spherical disc
5511	358	se	XCIII	Pale green	0.42	0.36	0.07	Spherical disc
5512	358	se	XCIII	Pale green	0.26	0.63	0.04	Spherical disc
5513	358	se	XCIII	Pale green	0.3	0.34	0.03	Spherical disc
5514	358	se	XCIII	Pale green	0.3	0.42	0.06	Spherical disc
5515	358	se	XCIII	Pale green	0.47	0.68	0.25	Spherical disc
5516	358	se	XCIII	Orange	0.27	0.44	0.06	Spherical disc
5517	358	se	XCIII	yellow	0.35	0.45	0.09	Spherical disc
5518	358	se	XCIII	White	0.32	0.42	0.05	Spherical disc
5519	358	se	XCIII	Pale green	0.35	0.43	0.09	Spherical disc

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
5520	358	se	XCIII	Pale green	0.4	0.41	0.09	Spherical disc
5521	358	se	XCIII	Pale blue	0.33	0.38	0.04	Spherical disc
5522	358	se	XCIII	Pale blue	0.23	0.37	0.03	Spherical disc
5523	358	se	XCIII	Orange	0.4	0.39	0.08	Spherical disc
5524	358	se	XCIII	Orange	0.28	0.42	0.06	Spherical disc
5525	358	se	XCIII	Orange	0.27	0.32	0.04	Spherical disc
5526	358	se	XCIII	Pale green	chips x2		0.02	Spherical disc
5527	358	se	XCIII	White	0.18	0.42	0.03	Spherical disc
5528	358	se	XCIII	yellow	0.31	0.33	0.04	Spherical disc
5529	358	se	XCIII	yellow	0.28	0.37	0.04	Spherical disc
5530	358	se	XCIII	Pale green	0.28	0.4	0.05	Spherical disc
5531	358	se	XCIII	Pale green	0.23	0.32	0.03	Spherical disc
5532	358	se	XCIII	Pale green	0.22	0.33	0.03	Spherical disc
5533	358	se	XCIII	Dark green	0.25	0.43	0.06	Spherical disc
5534	358	se	XCIII	Orange	0.32	0.42	0.08	Spherical disc
5535	358	se	XCIII	Orange	0.34	0.4	0.07	Spherical disc
5536	358	se	XCIII	Orange	0.23	0.42	0.05	Spherical disc
5537	358	se	XCIII	Orange	0.24	0.47	0.08	Spherical disc
5538	358	se	XCIII	Orange	0.35	0.42	0.09	Spherical disc
5539	358	se	XCIII	Orange	0.3	0.42	0.07	Spherical disc
5540	358	se	XCIII	Orange	0.3	0.33	0.04	Spherical disc
5541	358	se	XCIII	Orange	0.23	0.26	0.02	Spherical disc
5542	358	se	XCIII	Orange	0.23	0.42	0.05	Spherical disc
5543	358	se	XCIII	Orange	0.22	0.46	0.06	Spherical disc
5544	358	se	XCIII	Red	0.2	0.5	0.06	Spherical disc
5545	358	se	XCIII	yellow	0.23	0.37	0.04	Spherical disc
5546	358	se	XCIII	yellow	0.2	0.42	0.04	Spherical disc
5547	358	se	XCIII	yellow	0.25	0.4	0.05	Spherical disc
5548	358	se	XCIII	yellow	0.2	0.4	0.03	Spherical disc
5549	358	se	XCIII	yellow	0.16	0.35	0.02	Spherical disc
5550	358	se	XCIII	yellow	0.3	0.3	0.03	Spherical disc
5551	358	se	XCIII	White	0.29	0.07	0.04	Spherical disc
5552	358	se	XCIII	White	0.36	0.36	0.06	Spherical disc
5553	358	se	XCIII	Pale green	0.22	0.3	0.02	Spherical disc
5554	358	se	XCIII	Dark green	0.4	0.36	0.06	Spherical disc
5555	358	se	XCIII	Orange	0.27	0.46	0.08	Spherical disc
5556	358	se	XCIII	Orange	0.2	0.4	0.03	Spherical disc
5557	358	se	XCIII	Orange	0.14	0.24	negl	Spherical disc
5558	358	se	XCIII	Orange	0.25	0.29	0.02	Spherical disc
5559	358	se	XCIII	Red	0.26	0.52	0.07	Undiagnostic
5560	358	se	XCIII	Red	0.23	0.5	0.08	Spherical disc
5561	358	se	XCIII	yellow	0.25	0.46	0.06	Spherical disc
5562	358	se	XCIII	yellow	0.22	0.34	0.02	Spherical disc
5563	358	se	XCIII	Pale green	0.15	0.38	0.02	Spherical disc
5564	358	se	XCIII	Pale green	0.26	0.34	0.03	Spherical disc
5565	358	se	XCIII	White	0.18	0.38	0.04	Spherical disc
5566	358	se	XCIII	yellow	0.26	0.4	0.03	Spherical disc
5567	358	se	XCIII	White	0.23	0.38	0.03	Spherical disc
5568	358	se	XCIII	Pale green	0.08	0.21	negl	Spherical disc
5569	358	se	XCIII	Pale green	0.1	0.27	negl	Spherical disc
5570	358	se	XCIII	Pale green	0.33	0.65	0.1	Spherical disc
5571	358	se	XCIII	Orange	0.24	0.41	0.05	Spherical disc
5572	358	se	XCIII	Orange	0.15	0.4	0.03	Spherical disc
5573	358	se	XCIII	Orange	0.18	0.5	0.04	Spherical disc
5574	358	se	XCIII	Orange	0.16	0.46	0.04	Spherical disc
5575	358	se	XCIII	Orange	0.18	0.4	0.03	Spherical disc
5576	358	se	XCIII	Orange	0.25	0.3	0.05	Spherical disc
5577	358	se	XCIII	Orange	0.25	0.44	0.05	Spherical disc
5578	358	se	XCIII	yellow	chip x1		0.04	Spherical disc
5579	358	se	XCIII	Pale green	chip x1		0.05	Spherical disc
5580	358	se	XCIII	Pale green	0.17	0.4	negl	Spherical disc
5581	358	se	XCIII	Black	chip x1		0.03	Spherical disc
5582	358	se	XCIII	Orange	0.2	0.38	0.03	Spherical disc
5583	358	se	XCIII	Orange	0.1	0.25	negl	Spherical disc
5584	358	se	XCIII	Orange	0.14	0.31	0.01	Spherical disc
5585	358	se	XCIII	Orange	0.22	0.4	0.03	Spherical disc
5586	358	se	XCIII	Orange	0.3	0.25	0.01	Spherical disc
5587	358	se	XCIII	Red	0.33	0.47	0.07	Spherical disc
5588	358	se	XCIII	Pale blue	0.8	0.57	0.24	Collared sphere
5589	358	se	XCIII	Pale green	0.92	0.44	0.18	Collared sphere
5593	372	se	XCII	Transparent	0.4	0.35	0.06	Unseparated spheres
5595	358	se	XCIII	Pale green	chip x1		0.03	Spherical disc
5596	358	se	XCIII	yellow	chip x1		0.01	Spherical disc
5597	358	se	XCIII	Orange	chip x1		0.01	Spherical disc
5598	274	se	XCV	yellow	crushed	chips	0.07	Spherical disc
5599	365	nw	XCII	Dark blue	0.2	0.45	0.05	Spherical disc
5655	365	nw	XCII	Red	0.12	0.87	0.08	Disc
5665	356	nw	XCV	Pale green	frags		0.51	Undiagnostic
5669	363	ne	XCIII	Dark green	0.18	0.41	0.04	Spherical disc
5703	363	ne	XCIII	Pale green	0.24	0.38	0.05	Spherical disc
5705	363	ne	XCIII	Orange	0.19	0.35	0.03	Spherical disc
5706	363	ne	XCIII	Pale green	0.28	0.42	0.07	Spherical disc

Figure 7.2

Figure 7.3

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
5707	363	ne	XCIH	Dark green	0.23	0.38	0.06	Spherical disc
5708	363	ne	XCIH	Red	0.2	0.34	0.04	Spherical disc
5711	356	nw	XCV	Dark green	0.41	0.43	0.13	Spherical disc
5712	356	nw	XCV	Dark blue	0.18	0.3	0.02	Spherical disc
5713	359	nw	XCV	Orange	0.28	0.31	0.05	Spherical disc
5714	359	nw	XCV	Orange	0.31	0.32	0.04	Spherical disc
5715	359	nw	XCV	Red	0.44	0.43	0.13	Spherical disc
5717	324	ne	XCV	Orange	0.37	0.82	0.43	Spherical disc
5719	324	ne	XCV	White	1.15	1.25	0.91	Sphere
5720	324	ne	XCV	Orange	0.24	0.32	0.03	Spherical disc
5721	324	ne	XCV	Red	0.15	0.34	0.02	Spherical disc
5722	324	ne	XCV	Dark green	0.38	0.5	0.14	Spherical disc
5723	324	ne	XCV	Orange	0.25	0.38	0.05	Spherical disc
5724	324	ne	XCV	Orange	0.27	0.6	0.12	Spherical disc
5725	324	ne	XCV	Red	0.44	0.7	0.29	Spherical disc
5726	324	ne	XCV	Red	0.24	0.41	0.06	Spherical disc
5727	324	ne	XCV	Dark green	0.2	0.35	0.1	Spherical disc
5728	324	ne	XCV	Orange	0.37	0.64	0.12	Spherical disc
5729	324	ne	XCV	Red	0.21	0.31	0.03	Spherical disc
5736	394	sw	XCV	Dark green	0.17	0.36	0.03	Spherical disc
5737	420	sw	XCI	Red	0.11	0.96	0.22	Disc
5738	402	se	LXXXVII	Red	0.1	1.15	0.15	Disc
5739	402	se	LXXXVII	Red	0.08	0.97	0.09	Disc
5740	424	ne	XCI	Red	0.1	0.45	0.04	Disc
5741	385	se	XCI	Orange	0.13	0.63	0.1	Disc
5742	385	se	XCI	Orange	0.11	0.63	0.09	Disc
5743	385	se	XCI	Orange	0.12	0.57	0.08	Disc
5744	385	se	XCI	Red	0.16	0.51	0.05	Barrel
5745	385	se	XCI	Orange	0.12	0.58	0.07	Disc
5746	385	se	XCI	Orange	0.09	0.44	0.02	Disc
5747	385	se	XCI	Orange	0.13	0.34	0.01	Disc
5748	385	se	XCI	Orange	0.24	0.54	0.04	Spherical disc
5749	385	se	XCI	Orange	0.21	0.52	0.05	Spherical disc
5750	385	se	XCI	Pale green	0.18	0.76	0.08	Disc
5751	345	sw	XCIH	Red	0.36	0.41	0.12	Spherical disc
5752	345	sw	XCIH	Red	0.34	0.54	0.18	Spherical disc
5753	345	sw	XCIH	Orange	0.23	0.37	0.05	Spherical disc
5761	367	sw	XCH	Red	0.12	1.06	0.16	Disc
5762	367	sw	XCH	Red	0.3	0.28	0.04	Spherical disc
5763	367	sw	XCH	Red	0.35	0.31	0.06	Spherical disc
5764	367	sw	XCH	Pale green	0.87	0.88	0.45	Squashed collared sphere
5765	367	sw	XCH	yellow	0.58	0.45	0.17	Tube
5766	367	sw	XCH	Black	0.07	0.38	0.02	Disc
5767	334	ne	XCV	Orange	0.11	0.51	0.05	Disc
5768	334	ne	XCV	Orange	0.15	0.29	0.03	Spherical disc
5769	334	ne	XCV	yellow	0.31	0.28	0.05	Tube
5770	334	ne	XCV	Orange	0.17	0.3	0.03	Spherical disc
5771	334	ne	XCV	yellow	0.11	0.3	0.02	Spherical disc
5772	334	ne	XCV	Orange	0.25	0.29	0.04	Spherical disc
5781	334	ne	XCV	Orange	0.21	0.51	0.09	Disc
5782	334	ne	XCV	yellow	0.38	0.32	0.08	Tube
5783	334	ne	XCV	yellow	0.18	0.27	0.02	Spherical disc
5784	334	ne	XCV	Red	0.26	0.39	0.06	Spherical disc
5785	334	ne	XCV	Pale blue	0.27	0.39	0.07	Spherical disc
5787	313	sw	XCV	yellow	0.14	0.37	0.03	Spherical disc
5788	313	sw	XCV	Orange	0.32	0.35	0.06	Spherical disc
5789	313	sw	XCV	yellow	0.12	0.28	0.01	Spherical disc
5790	313	sw	XCV	Red	0.31	0.34	0.06	Spherical disc
5791	313	sw	XCV	Orange	0.19	0.3	0.03	Spherical disc
5792	73	se	XCH	Pale blue	0.33	0.5	0.1	Spherical disc
5793	324	ne	XCV	Red	0.2	0.39	0.04	Spherical disc
5794	324	ne	XCV	Orange	0.12	0.34	0.02	Disc
5795	418	ne	XCI	Red	0.13	1.05	0.3	Disc
5796	385	se	XCI	Orange	0.14	0.66	0.12	Disc
5797	385	se	XCI	Pale blue	0.36	0.56	0.18	Spherical disc
5798	385	se	XCI	Pale blue	0.46	0.57	0.13	Spherical disc
5799	385	se	XCI	Pale blue	0.16	0.22	0.02	Spherical disc
5806	345	sw	XCIH	Dark blue	1.54	1.46	2.36	Sphere
5809	374	sw	XCIH	Red	0.14	1.05	0.3	Disc
5810	374	sw	XCIH	Orange	0.1	0.44	0.03	Disc
5811	358	nw	XCV	Orange	0.17	0.4	0.04	Spherical disc
5812	358	se	XCH	Pale green	0.45	0.75	0.18	Collared sphere
5813	401	sw	XCV	Red	0.13	0.93	0.12	Disc
5817	401	sw	XCV	Orange	0.21	0.32	0.02	Spherical disc
5820	409	nw	LXXXVIII	Red	0.13	0.97	0.27	Disc
5821	409	nw	LXXXVIII	Red	0.11	0.89	0.13	Disc
5828	400	se	XCI	Red	0.12	0.8	0.14	Disc
5829	400	se	XCI	Red	0.15	1	0.26	Disc
5831	298	ne	XCV	Black	0.25	0.38	0.07	Spherical disc
5832	343	nw	XCV	yellow	0.28	0.37	0.06	Spherical disc
5833	343	nw	XCV	Orange	0.2	0.35	0.02	Spherical disc
5834	358	nw	XCIH	Pale green	frags		0.44	Undiagnostic

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
5835	358	se	XCIII	yellow	0.21	0.39	0.04	Spherical disc
5836	358	se	XCIII	Pale green	0.16	0.35	0.05	Spherical disc
5837	358	se	XCIII	Red	0.35	0.63	0.04	Spherical disc
5839	306	sw	XCIII	White	0.36	0.41	0.05	Spherical disc
5841	390	se	LXXXVI	Red	0.14	0.72	0.13	Disc
5842	390	se	LXXXVI	Orange	0.23	0.68	0.1	Spherical disc
5843	390	se	LXXXVI	Red	0.14	1.1	0.19	Disc
5849	291	ne	XCV	Red&orange	0.49	0.54	0.14	Spherical disc
5853	369	se	XCIII	Black	0.27	0.41	0.07	Spherical disc
5854	369	se	XCIII	Pale blue	0.37	0.42	0.09	Spherical disc
5855	369	se	XCIII	Orange	0.37	0.43	0.11	Spherical disc
5856	369	se	XCIII	Black	0.27	0.52	0.1	Spherical disc
5857	369	se	XCIII	Dark blue	0.36	0.39	0.07	Spherical disc
5858	369	se	XCIII	Black&white	0.24	0.38	0.05	Spherical disc
5859	369	se	XCIII	Pale green	0.14	0.27	0.01	Spherical disc
5864	403	nw	XCI	Red	0.11	1.03	0.26	Disc
5865	415	sw	XCI	Red	0.11	0.97	0.23	Disc
5866	415	sw	XCI	Red	0.12	0.85	0.18	Disc
5867	396	sw	XCI	Orange	0.14	0.68	0.12	Disc
5869	424	ne	XCI	Red	0.09	0.59	0.06	Disc
5874	467	nw	LXXXI	White	0.2	0.44	0.06	Spherical disc
5875	467	nw	LXXXI	Dark green	frags		0.6	Undiagnostic
5877	409	sw	LXXXVIII	Red	0.12	0.9	0.22	Disc
5878	409	sw	LXXXVIII	Red	0.08	1.06	0.13	Disc
5879	409	sw	LXXXVIII	Pale blue	0.46	0.28	0.11	Rectangular spacer
5880	409	sw	LXXXVIII	Red	0.15	0.86	0.11	Disc
5881	409	sw	LXXXVIII	Pale blue	0.61	0.51	0.14	Tube
5882	409	sw	LXXXVIII	Pale green	0.66	0.75	0.5	Spherical disc
5883	399	ne	XCI	Red	0.16	0.52	0.08	Disc
5884	396	sw	XCI	Orange	0.18	0.45	0.06	Spherical disc
5885	396	sw	XCI	Red	0.13	0.56	0.09	Disc
5886	396	sw	XCI	Orange	0.14	0.58	0.08	Disc
5887	396	sw	XCI	Red	0.15	0.44	0.02	Disc
5888	396	sw	XCI	Dark green	0.18	0.25	0.02	Spherical disc
5889	283	nw	XCV	Pale green	0.99	0.76	0.42	Collared sphere
5890	283	nw	XCV	yellow	0.18	0.29	0.03	Spherical disc
5891	283	nw	XCV	Orange	0.44	0.18	0.05	Rectangular spacer
5892	283	nw	XCV	Orange	0.17	0.3	0.01	Spherical disc
5893	414	sw	XCI	Red	0.12	1.2	0.17	Disc
5894	361	nw	XCII	Orange	0.18	0.38	0.04	Spherical disc
5895	361	nw	XCII	Orange	0.22	0.31	0.02	Spherical disc
5898	401	sw	XCV	Pale blue	0.3	0.31	0.03	Spherical disc
5899	401	sw	XCV	Pale blue	0.19	0.44	0.05	Spherical disc
5906	304	ne	XCIII	yellow	0.28	0.36	0.07	Spherical disc
5907	304	ne	XCIII	Pale green	0.31	0.44	0.09	Spherical disc
5908	304	ne	XCIII	Orange	0.31	0.37	0.08	Spherical disc
5909	304	ne	XCIII	yellow	0.3	0.36	0.09	Spherical disc
5910	304	ne	XCIII	Brown	0.42	0.28	0.08	Tube
5911	304	ne	XCIII	Red	0.34	0.32	0.07	Spherical disc
5912	304	ne	XCIII	Orange	0.22	0.47	0.07	Spherical disc
5913	304	ne	XCIII	Orange	0.33	0.46	0.13	Spherical disc
5914	304	ne	XCIII	Orange	0.18	0.35	0.04	Spherical disc
5915	304	ne	XCIII	Pale green	0.36	0.42	0.11	Spherical disc
5916	304	ne	XCIII	Orange	0.2	0.33	0.05	Spherical disc
5917	304	ne	XCIII	Orange	0.13	0.46	0.06	Disc
5918	304	ne	XCIII	yellow	0.21	0.31	0.03	Spherical disc
5919	304	ne	XCIII	Red	0.17	0.36	0.04	Disc
5920	304	ne	XCIII	Orange	0.3	0.38	0.11	Spherical disc
5921	406	sw	XCI	Red	0.11	0.93	0.21	Disc
5922	352	nw	XCV	Orange	0.34	0.42	0.07	Spherical disc
5923	352	nw	XCV	Orange	0.25	0.29	0.03	Spherical disc
5924	352	nw	XCV	Pale green	0.1	0.47	0.03	Disc
5925	304	ne	XCIII	Pale blue	0.25	0.47	0.03	Spherical disc
5926	304	ne	XCIII	White	0.21	0.61	0.08	Undiagnostic
5994	417	nw	XCI	Dark blue	0.34	0.42	0.07	Unseparated spheres
5997	494	ne	LXXV	Pale green	0.42	0.42	0.09	Spherical disc
6000	304	ne	XCIII	Pale green	0.35	0.46	0.1	Spherical disc
6001	304	ne	XCIII	Pale green	0.32	0.52	0.13	Spherical disc
6002	370	se	XCIII	Black	0.29	0.42	0.06	Spherical disc
6003	304	ne	XCIII	Pale green	0.12	0.23	0.01	Spherical disc
6003	370	se	XCIII	Red	0.39	0.34	0.13	Spherical disc
6004	370	se	XCIII	yellow	0.25	0.34	0.03	Spherical disc
6005	370	se	XCIII	Black	0.34	0.44	0.08	Spherical disc
6005	306	sw	XCIII	Dark blue	1.47	1.32	2.96	Truncated bicone
6006	370	se	XCIII	Black	0.44	0.47	0.12	Spherical disc
6007	370	se	XCIII	yellow	0.21	0.35	0.02	Spherical disc
6008	370	se	XCIII	yellow	0.44	0.88	1.8	Spherical disc
6009	370	se	XCIII	Black	0.32	0.4	0.07	Spherical disc
6018	304	ne	XCIII	Pale green	1.02	0.81	0.31	Squashed collared sphere
6019	304	ne	XCIII	Pale green	0.34	0.46	0.1	Spherical disc
6021	304	ne	XCIII	Pale green	0.25	0.53	0.12	Spherical disc
6022	358	se	XCIII	yellow	0.34	0.54	0.13	Spherical disc

Figure 7.3

Figure 7.2

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
6023	358	se	XCIII	Pale green	0.35	0.6	0.17	Spherical disc
6024	358	se	XCIII	Red	0.31	0.33	0.05	Spherical disc
6026	358	se	XCIII	Pale green	0.32	0.57	0.13	Spherical disc
6027	358	se	XCIII	Pale green	0.26	0.33	0.03	Spherical disc
6034	364	ne	XCII	Dark blue	0.76	0.56	0.34	Tube
6037	364	ne	XCII	Pale green	0.36	0.45	0.08	Spherical disc
6041	364	ne	XCII	Pale green	0.18	0.61	0.07	Disc
6048	365	nw	XCHI	Red	0.42	0.47	0.14	Spherical disc
6049	365	nw	XCHI	Pale green	0.34	0.64	0.22	Spherical disc
6050	365	nw	XCHI	Pale green	0.65	0.61	0.09	Sphere
6053	365	nw	XCHI	Pale green	chips		0.1	Spherical disc
6055	365	nw	XCHI	Dark blue	0.24	0.52	0.1	Spherical disc
6056	365	nw	XCHI	Pale green	0.35	0.42	0.06	Spherical disc
6064	363	ne	XCIII	Pale blue	0.54	0.47	0.11	Squashed collared sphere
6067	365	nw	XCII	Pale blue	0.56	0.33	0.05	Spherical disc
6073	345	sw	XCIII	Orange	0.42	0.55	0.2	Spherical disc
6075	345	sw	XCIII	Pale blue	0.24	0.42	0.05	Spherical disc
6078	345	sw	XCIII	Pale green	0.24	0.47	0.08	Spherical disc
6079	364	ne	XCII	Pale green	0.28	0.46	0.1	Spherical disc
6086	358	se	XCIII	Pale green	0.32	0.42	0.08	Spherical disc
6093	378	se	XCIII	Pale green	0.32	0.47	0.12	Spherical disc
6096	368	sw	XCIII	Pale green	1.88	1.19	1.89	Elliptical
6097	378	se	XCIII	Pale green	0.12	0.55	0.05	Disc
6099	376	nw	LXXXVI	Pale green	0.75	0.41	0.13	Elliptical
6100	378	se	XCIII	Red	0.41	0.4	0.09	Spherical disc
6102	378	se	XCIII	Orange	0.19	0.31	0.03	Spherical disc
6104	376	nw	LXXXVI	Red	0.08	0.82	0.11	Disc
6113	305	sw	XCIII	Pale green	0.13	0.51	0.05	Disc
6115	305	sw	XCIII	Pale blue	0.11	0.47	0.04	Disc
6122	376	nw	LXXXVI	Pale green	0.13	0.47	0.04	Disc
6124	305	sw	XCIII	Dark green	0.15	0.28	0.01	Spherical disc
6125	376	nw	LXXXVI	Pale green	frags		0.06	Disc
6126	305	sw	XCIII	Pale green	0.43	0.46	0.16	Spherical disc
6131	305	sw	XCIII	Red	0.14	0.46	0.04	Disc
6133	366	se	XCHI	Pale green	frags		0.17	Spherical disc
6135	379	sw	XCIII	Dark blue	0.52	0.6	0.25	Spherical disc
6173	385	se	XCI	Orange	0.2	0.66	0.15	Spherical disc
6179	385	se	XCI	Pale green	0.67	0.54	0.19	Collared sphere
6188	376	nw	LXXXVI	Pale green	0.28	0.44	0.1	Spherical disc
6189	376	nw	LXXXVI	Red	0.1	0.74	0.06	Disc
6190	376	nw	LXXXVI	Red	chip x1		0.12	Disc
6191	376	nw	LXXXVI	yellow	0.06	0.43	0.03	Disc
6201	370	se	XCHI	Black	0.24	0.47	0.07	Spherical disc
6213	355	ne	XCIII	Orange	0.13	0.57	0.08	Disc
6215	386	ne	XCI	Pale green	0.37	0.6	0.22	Spherical disc
6230	386	ne	XCI	yellow	0.34	0.5	0.09	Spherical disc
6232	306	sw	XCIII	Pale blue	0.25	0.32	0.03	Spherical disc
6233	306	sw	XCIII	Black	chips x3		0.51	Undiagnostic
6234	313	sw	XCV	Red	0.2	0.3	0.03	Spherical disc
6237	313	sw	XCV	Pale green	0.25	0.3	0.03	Spherical disc
6237	304	ne	XCIII	Pale green	0.42	0.46	0.07	Spherical disc
6248	313	sw	XCV	Dark blue	0.47	0.6	0.23	Spherical disc
6253	390	se	LXXXVI	Black	0.36	0.68	0.21	Spherical disc
6263	386	nw	XCI	Dark blue	0.55	0.37	0.12	Tube
6268	386	nw	XCI	Red	0.1	0.53	0.05	Disc
6269	386	nw	XCI	yellow	0.2	0.5	0.04	Spherical disc
6271	386	nw	XCI	Dark blue	0.7	0.7	0.49	Sphere
6272	393	sw	XCV	Pale green	chips x3		0.04	Spherical disc
6273	313	sw	XCV	Orange	0.55	0.73	0.5	Unperforated sphere
6274	313	sw	XCV	Orange	0.23	0.54	0.09	Spherical disc
6299	386	nw	XCI	yellow	0.27	0.5	0.09	Spherical disc
6306	385	se	XCI	Orange	chip x1		0.03	Spherical disc
6308	386	nw	XCI	yellow	0.33	0.56	0.14	Spherical disc
6314	394	sw	XCV	Pale green	chip x1		0.09	Squashed collared sphere
6317	394	sw	XCV	Orange	0.26	0.63	0.17	Spherical disc
6319	386	nw	XCI	Pale green	0.22	0.3	0.02	Spherical disc
6321	398	se	XCI	yellow	0.48	0.43	0.18	Spherical disc
6323	386	nw	XCI	Pale green	0.2	0.3	0.01	Spherical disc
6326	600		XCV	Dark blue	chip x1		1.38	Collared sphere
6332	394	sw	XCV	Dark green	0.37	0.49	0.13	Spherical disc
6349	390	se	LXXXVI	yellow	1.01	0.38	0.04	Disc
6350	401	sw	XCV	Orange	0.44	0.74	0.3	Spherical disc
6353	401	sw	XCV	Orange	0.36	0.63	0.23	Spherical disc
6356	390	se	LXXXVI	Red	0.14	1.28	0.29	Disc
6357	399	se	XCI	Red	0.11	0.95	0.24	Disc
6363	390	se	LXXXVI	Red	0.07	0.89	0.16	Disc
6371	390	se	LXXXVI	Red	0.12	0.78	0.07	Disc
6375	390	se	LXXXVI	Red	0.21	1.07	0.19	Disc
6378	411	sw	XCV	Orange	0.34	0.76	0.26	Spherical disc
6387	408	sw	XCI	Pale green	0.25	0.39	0.03	Squashed sphere
6388	408	sw	XCI	White	0.27	0.53	0.11	Spherical disc
6391	408	sw	XCI	Black	0.72	0.81	0.6	Sphere

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
6401	412	se	LXXXVII	Pale green	0.27	0.36	0.03	Spherical disc
6411	406	se	XCI	Pale green	0.3	0.48	0.08	Spherical disc
6413	414	sw	XCI	Yellow	0.26	0.45	0.06	Spherical disc
6414	390	se	LXXXVI	White	0.83	0.7	0.47	Sphere
6425	399	se	XCI	Dark green	0.1	0.2	0.01	Spherical disc
6431	414	sw	XCI	Pale green	0.32	0.46	0.08	Spherical disc
6432	414	sw	XCI	Pale green	0.2	0.4	0.04	Spherical disc
6433	414	sw	XCI	Dark blue	0.4	0.6	0.17	Spherical disc
6438	414	sw	XCI	Pale green	0.27	0.48	0.08	Spherical disc
6445	406	sw	XCI	Pale green	0.18	0.76	0.12	Disc
6447	415	se	XCI	Red	0.12	0.88	0.18	Disc
6453	414	sw	XCI	Red	0.13	0.91	0.19	Disc
6456	416	ne	XCI	Dark blue	0.5	0.51	0.18	Spherical disc
6462	409	nw	LXXXVIII	Red	0.12	0.84	0.17	Disc
6466	416	ne	XCI	White	0.46	0.6	0.2	Spherical disc
6473	399	ne	XCI	Green&clear	0.35	0.47	0.09	Spherical disc
6478	415	se	XCI	Red	0.15	1.08	0.35	Disc
6482	414	sw	XCI	Dark blue	0.25	0.49	0.09	Spherical disc
6483	414	sw	XCI	Dark blue	0.34	0.66	0.22	Spherical disc
6484	414	sw	XCI	Pale green	0.22	0.47	0.07	Spherical disc
6494	415	se	XCI	Red	0.11	1.04	0.25	Disc
6495	415	se	XCI	Pale green	0.25	0.29	0.03	Spherical disc
6501	415	se	XCI	Red	0.13	1.13	0.32	Disc
6508	417	nw	XCI	Red	0.13	0.86	0.16	Disc
6517	422	sw	XCI	Dark green	0.18	0.3	0.02	Spherical disc
6529	416	ne	XCI	Red	0.1	0.99	0.2	Disc
6535	422	sw	XCI	Red	0.13	1.1	0.15	Disc
6538	420	sw	XCI	Red	0.11	1.07	0.13	Disc
6540	422	sw	XCI	Pale blue	0.27	0.54	0.12	Spherical disc
6546	409	ne	LXXXVIII	Red	0.14	1.13	0.18	Disc
6572	426	ne	LXXXVIII	Red	0.11	0.72	0.12	Disc
6575	424	nw	XCI	Red	0.12	0.87	0.19	Disc
6583	424	nw	XCI	Red	0.12	0.91	0.19	Disc
6585	424	nw	XCI	Red	0.09	0.97	0.19	Disc
6587	426	ne	LXXXVIII	White&blue	1.35	1.27	2.24	Unperforated sphere
6607	406	sw	XCI	Red	0.13	0.64	0.1	Disc
6618	425	sw	XCI	Red	0.14	0.96	0.25	Disc
6629	429	sw	XCV	Pale green	0.19	0.31	0.02	Spherical disc
6632	426	ne	LXXXVIII	Red	0.1	0.86	0.16	Disc
6652	425	ne	XCI	Dark blue	0.82	0.48	0.41	Squashed sphere
6672	425	sw	XCI	Red	0.12	1.18	0.34	Disc
6676	426	ne	LXXXVIII	Red	0.14	0.96	0.23	Disc
6677	416	ne	XCI	Red	0.15	1	0.3	Disc
6679	406	sw	XCI	Red	0.17	1.07	0.22	Disc
6689	427	sw	XCI	Dark blue	0.78	0.6	0.53	Collared cornerless cube
6693	416	ne	XCI	Red	0.11	1.22	0.23	Disc
6694	427	sw	XCI	Red	0.12		0.15	Disc
6697	416	ne	XCI	Red	0.11	0.92	0.18	Disc
6698	416	ne	XCI	Red	0.14	1.05	0.31	Disc
6702	416	ne	XCI	Red	0.13	0.97	0.25	Disc
6706	416	ne	XCI	Red	0.1	0.95	0.16	Disc
6707	416	ne	XCI	Red	0.14	1	0.24	Disc
6712	390	se	LXXXVI	Red	0.1	0.87	0.14	Disc
6715	390	se	LXXXVI	Red	chipx1		0.08	Disc
6717	416	ne	XCI	Red	0.13	0.92	0.2	Disc
6719	416	ne	XCI	Red	0.14	1.13	0.33	Disc
6720	416	ne	XCI	Red	0.13	0.9	0.18	Disc
6725	427	sw	XCI	Red	0.1	0.86	0.13	Disc
6729	390	se	LXXXVI	Red	0.14	1.18	0.19	Disc
6729	416	ne	XCI	Pale green	chipx1		1.73	Undiagnostic
6743	442	se	LXXXVII	Red	0.11	1	0.28	Disc
6783	445	sw	LXXXVII	Red	0.13	0.91	0.24	Disc
6787	445	sw	LXXXVII	Red	0.15	0.9	0.22	Disc
6811	468	ne	LXXXI	Red	0.08	0.77	0.1	Disc
6812	443	se	LXXXVII	Red	0.12	1	0.25	Disc
6813	470	nw	LXXXI	Red	0.12	1.02	0.22	Disc
6825	470	sw	LXXXI	Red	0.12	0.85	0.16	Disc
6826	470	sw	LXXXI	Red	0.12	0.94	0.21	Disc
6832	487	ne	LXXXI	Red	0.13	1.27	0.46	Disc
6835	487	ne	LXXXI	Red	0.13	1.25	0.39	Disc
6836	487	ne	LXXXI	Red	0.12	0.9	0.21	Disc
6837	487	ne	LXXXI	Red	0.12	0.94	0.22	Disc
6838	487	ne	LXXXI	Red	0.08	0.91	0.17	Disc
6843	470	sw	LXXXI	Red	0.12	1.15	0.35	Disc
6845	470	sw	LXXXI	Red	0.11	0.88	0.1	Disc
6857	487	ne	LXXXI	Red	0.13	1.28	0.46	Disc
6860	487	ne	LXXXI	Red	0.1	0.88	0.16	Disc
6862	470	sw	LXXXI	Red	0.16	0.81	0.21	Disc
6865	487	ne	LXXXI	Red	0.12	1.02	0.26	Disc
6870	470	nw	LXXXI	Red	0.18	1.19	0.48	Disc
6873	470	sw	LXXXI	Red	0.12	1.03	0.13	Disc
6875	470	sw	LXXXI	Red	0.11	1.08	0.15	Disc

Figure 7.2

Figure 7.3

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
6892	467	nw	LXXXI	Red	0.11	0.88	0.17	Disc
6895	487	ne	LXXXI	Red	0.15	0.98	0.31	Disc
6896	487	ne	LXXXI	Red	0.09	1.07	0.25	Disc
6897	487	ne	LXXXI	Red	0.12	0.89	0.11	Disc
6903	467	nw	LXXXI	Red	0.11	1.17	0.22	Disc
6905	487	ne	LXXXI	Red	0.13	1.22	0.21	Disc
6912	467	nw	LXXXI	Pale green	0.29	0.43	0.05	Spherical disc
6913	467	nw	LXXXI	Pale green	0.11	0.25	neg	Spherical disc
6924	467	nw	LXXXI	Pale green	0.13	0.25	0.01	Spherical disc
6935	470	sw	LXXXI	Red	0.17	1.02	0.26	Disc
6937	470	sw	LXXXI	Red	0.12	1.22	0.2	Disc
6938	470	sw	LXXXI	Red	0.15	1.16	0.38	Disc
6949	487	ne	LXXXI	Red	0.14	1.27	0.37	Disc
6956	469	se	LXXXI	Red	0.12	1.08	0.31	Disc
6966	429	sw	XCV	Pale green	0.71	0.7	0.4	Sphere
6969	469	se	LXXXI	Red	0.14	0.95	0.15	Disc
6998	487	ne	LXXXI	Red	0.11	0.99	0.25	Disc
7011	487	ne	LXXXI	Red	0.17	0.97	0.37	Disc
7012	487	ne	LXXXI	Red	0.11	1.22	0.21	Disc
7013	487	ne	LXXXI	Red	0.1	1.26	0.2	Disc
7016	469	se	LXXXI	Red	0.13	1.22	0.36	Disc
7018	487	ne	LXXXI	Red	0.15	0.94	0.25	Disc
7019	490	sw	LXXV	Red	0.11	0.82	0.07	Disc
7836	484	ne	LXXV	Red	0.14	1.29	0.48	Disc
7037	494	ne	LXXV	Red	0.15	0.99	0.28	Disc
7046	492	se	LXXV	Red	0.11	0.89	0.22	Disc
7048	494	ne	LXXV	Red	0.13	1.01	0.26	Disc
7052	495	sw	LXXX	Pale blue	0.2	0.39	0.06	Spherical disc
7053	494	ne	LXXV	Red	0.12	0.97	0.24	Disc
7063	495	se	LXXX	Red	0.07	1.04	0.21	Disc
7067	494	ne	LXXV	Red	0.08	1.27	0.38	Disc
7077	494	ne	LXXV	Red	0.14	1.14	0.21	Disc
7081	494	ne	LXXV	Red	0.12	1.09	0.31	Disc
7098	494	ne	LXXV	Dark blue	0.55	0.46	0.21	Tube
7099	490	sw	LXXV	Red	0.11	1.18	0.23	Disc
7113	495	sw	LXXX	Orange	0.12	1.02	0.27	Disc
7118	494	ne	LXXV	Red	0.12	1	0.13	Disc
7122	493	se	LXXV	Orange	0.1	0.58	0.07	Disc
7128	494	ne	LXXV	Red	0.14	0.72	0.12	Disc
7138	492	se	LXXV	Red	0.14	0.95	0.25	Disc
7147	494	ne	LXXV	Red	0.14	0.81	0.09	Disc
7151	494	ne	LXXV	Red	0.11	0.86	0.16	Disc
7176	494	ne	LXXV	Red	0.15	1.04	0.26	Disc
7187	494	ne	LXXV	Pale green	0.14	0.58	0.05	Disc
7193	493	se	LXXV	Pale green	0.64	0.34	0.18	Squashed collared sphere
7200	493	se	LXXV	Red	0.17	1.04	0.39	Disc
7207	493	se	LXXV	Red	0.18	1.21	0.54	Disc
7210	490	sw	LXXV	Red	0.09	0.97	0.2	Disc
7215	492	se	LXXV	Red	0.13	1.03	0.28	Disc
7218	492	se	LXXV	White	0.29	0.44	0.06	Spherical disc
7219	493	se	LXXV	Red	0.1	1.06	0.26	Disc
7227	506	sw	LXXXI	Red	0.12	1.11	0.15	Disc
8002	470	sw	LXXXI	Red	0.15	0.83	0.2	Disc
8003	490	sw	LXXV	Red	0.11	0.67	0.1	Disc
8004	490	sw	LXXV	Red	0.12	1.05	0.14	Disc
8005	492	sw	LXXV	Red	0.08	0.96	0.21	Disc
8006	492	sw	LXXV	Red	0.15	1.05	0.3	Disc
8007	494	ne	LXXV	Red	0.09	1.15	0.17	Disc
8008	494	ne	LXXV	Red	0.12	0.94	0.25	Disc
8009	494	ne	LXXV	Red	0.11	0.94	0.21	Disc
8010	494	ne	LXXV	Red	0.08	0.8	0.06	Disc
8011	494	ne	LXXV	Red	0.14	0.47	0.05	Disc
8012	494	ne	LXXV	Red	0.12	1.14	0.21	Disc
8018	411	sw	XCV	Brown	0.25	0.41	0.08	Spherical disc
8019	411	sw	XCV	Orange	0.22	0.48	0.09	Spherical disc
8020	411	sw	XCV	Red	0.13	1.02	0.13	Disc
8021	410	sw	XCV	White	0.21	0.26	0.03	Spherical disc
8039	467	nw	LXXXI	Orange	0.12	0.34	0.02	Spherical disc
8040	467	nw	LXXXI	yellow	0.38	0.44	0.06	Spherical disc
8041	467	nw	LXXXI	Orange	0.2	0.5	0.08	Spherical disc
8042	467	nw	LXXXI	White	0.2	0.56	0.06	Spherical disc
8043	467	nw	LXXXI	White	0.45	0.37	0.03	Spherical disc
8044	467	nw	LXXXI	White	0.34	0.32	0.05	Spherical disc
8045	467	nw	LXXXI	White	0.27	0.42	0.03	Spherical disc
8047	467	nw	LXXXI	Dark blue	0.36	0.5	0.06	Spherical disc
8048	467	nw	LXXXI	Dark blue	0.4	0.6	0.17	Spherical disc
8073	494	ne	LXXV	Pale green	0.66	0.57	0.17	Undiagnostic
8074	494	ne	LXXV	Red	0.12	0.57	0.08	Disc
8075	494	ne	LXXV	Red	0.1	1.18	0.22	Disc
8076	494	ne	LXXV	Red	0.12	0.99	0.11	Disc
8077	494	ne	LXXV	Red	0.1	0.13	0.13	Disc
8078	494	ne	LXXV	Dark blue	0.36	0.5	0.06	Spherical disc

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
8088	492	sw	LXXV	Red	0.1	0.81	0.16	Disc
8089	492	sw	LXXV	Red	0.12	0.97	0.12	Disc
8090	490	sw	LXXV	Red	0.13	0.92	0.24	Disc
8091	490	sw	LXXV	Red	0.11	1.01	0.12	Disc
8093	495	sw	LXXX	Red	0.12	1.07	0.26	Disc
8094	492	sw	LXXV	Dark blue	0.68	0.8	0.63	Notched prism
8095	494	ne	LXXV	Red	0.14	0.96	0.27	Disc
8096	494	ne	LXXV	Red	0.12	1.06	0.3	Disc
8097	494	ne	LXXV	Red	0.1	0.34	0.19	Disc
8098	494	ne	LXXV	Red	0.11	0.92	0.19	Disc
8099	494	ne	LXXV	Red	0.1	0.91	0.19	Disc
8100	494	ne	LXXV	Red	0.11	1.04	0.24	Disc
8101	494	ne	LXXV	Red	0.13	0.24	0.16	Disc
8102	494	ne	LXXV	Red	0.1	1	0.12	Disc
8110	494	ne	LXXV	Red	0.1	0.95	0.21	Disc
8111	494	ne	LXXV	Red	0.09	0.9	0.16	Disc
8121	476	ne	LXXXI	Red	0.15	0.86	0.16	Disc
8122	450	sw	LXXXVII	Red	0.12	0.96	0.08	Disc
8123	450	sw	LXXXVII	Red	0.21	0.69	0.12	Disc
8124	457	sw	LXXXVI	Red	0.16	1.17	0.37	Disc
8125	470	sw	LXXXI	Orange	0.19	0.56	0.09	Disc
8126	470	sw	LXXXI	Red	0.12	0.42	0.02	Disc
8127	470	sw	LXXXI	Red	0.14	0.76	0.06	Disc
8129	467	nw	LXXXI	Red	0.14	1.13	0.16	Disc
8130	450	nw	LXXXVII	Red	0.13	0.9	0.17	Disc
8131	450	nw	LXXXVII	Pale blue	0.41	0.49	0.07	Spherical disc
8132	487	ne	LXXXI	Red	0.16	1.05	0.27	Disc
8133	487	ne	LXXXI	Red	0.18	1.21	0.25	Disc
8134	487	ne	LXXXI	Red	0.15	0.96	0.13	Disc
8135	487	ne	LXXXI	Red	0.15	0.49	0.05	Disc
8137	469	se	LXXXI	Red	0.14	0.96	0.19	Disc
8138	469	se	LXXXI	Red	0.14	1.18	0.3	Disc
8139	469	se	LXXXI	Red	0.14	0.82	0.16	Disc
8203	489	ne	LXXV	Red	0.13	0.95	0.26	Disc
8204	487	ne	LXXXI	Red	0.13	1.29	0.48	Disc
8206	490	sw	LXXV	Red	0.12	0.75	0.08	Disc
8207	492	sw	LXXV	Red	0.09	0.61	0.07	Disc
8208	493	sw	LXXV	Red	0.11	1.01	0.14	Disc
8209	490	sw	LXXV	Red	0.14	0.91	0.19	Disc
8210	511	ne	LXXVI	Transparent	0.41	0.49	0.12	Spherical disc
8276	502	ne	LXXVI	Red	0.07	0.91	0.1	Disc
8277	502	ne	LXXVI	Red	0.09	0.94	0.11	Disc
8489	492	ne	LXXV	Red	0.09	1.17	0.25	Disc
8790	47	nw	XCVI	Orange	0.15	0.33	0.05	Spherical disc
8791	15	nw	CXI	Orange	0.15	0.23	0.01	Spherical disc
8792	129	se	XCVI	Orange	0.18	0.65	0.01	Spherical disc
8793	427	sw	XCI	White	0.36	0.47	0.03	Spherical disc
8794	180	nw	XCIII	Red	0.22	0.26	0.04	Spherical disc
8799	180	nw	XCIII	Red	0.28	0.3	0.07	Spherical disc
10005	601	se	LXXII	Red	0.11	1.09	0.34	Disc
10029	601	se	LXXII	Red	0.12	0.97	0.32	Disc
10032	606	se	LXX	Red	0.11	0.99	0.32	Disc
10042	606	se	LXX	Dark blue	0.62	0.53	0.3	Sphere
10043	605	sw	LXXXIII	Pale green	0.33	0.34	0.01	Spherical disc
10052	601	se	LXXII	White	0.12	0.54	0.05	Spherical disc
10063	607	se	LXXI	Red	0.13	0.96	0.24	Disc
10065	607	se	LXXI	Red	0.07	0.82	0.2	Disc
10069	607	se	LXXI	Red	0.12	0.97	0.2	Disc
10074	607	se	LXXI	Red	0.12	1.01	0.3	Disc
10075	601	se	LXXII	Red	0.15	1.12	0.18	Disc
10094	616	se	LXX	Red	0.1	0.98	0.29	Disc
10095	615	ne	LXVIII	Red	0.11	0.96	0.24	Disc
10096	616	se	LXX	Red	0.08	0.98	0.26	Disc
10097	616	se	LXX	Red	0.06	0.79	0.14	Disc
10110	616	se	LXX	Red	0.08	0.97	0.24	Disc
10112	630	nw	LXXVI	Red	0.09	0.86	0.16	Disc
10160	615	ne	LXVIII	Red	0.08	0.96	0.12	Disc
10166	601	se	LXXII	White	0.08	0.55	0.06	Disc
10182	693	nw	LXXXIV	Red	0.11	1.04	0.08	Disc
10182	693	nw	LXXXIV	Red	0.13	1.04	0.3	Disc
10194	503	ne	LXXVI	Red	0.12	0.91	0.22	Disc
10221	707	se	LIV	Red	0.13	0.78	0.17	Disc
10231	714	sw	LIV	Red	0.09	0.91	0.1	Disc
10242	714	sw	LIV	Red	0.14	0.92	0.25	Disc
10279	789	sw	LIII	Black	0.56	0.74	0.47	Faceted
10296	752	nw	XLI	Red	0.11	0.86	0.16	Disc
10331	895	ne	XXXVI	Red	0.14	0.39	0.03	Spherical disc
10337	899	se	XXXVI	Red	0.12	0.96	0.23	Disc
10348	924	sw	XXXI	Red	0.11	1.09	0.17	Disc
10349	909	se	XXXI	Red	0.88	0.08	0.15	Disc
10514	977	ne	XXVIII	Pale blue	0.36	0.41	0.05	Spherical disc
10547	977	sw	XXVIII	Red	0.11	0.34	0.02	Disc

Appendix

Srl. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
10612	1125	nr	XXII	Red	0.12	0.47	0.05	Disc
10618	1172	se	XXII	Red	0.13	0.43	0.12	Disc
10666	1175	se	XVIII	Red	0.28	0.37	0.06	Spherical disc
15000	600		XCV	Dark blue	0.44	0.42	0.16	Tube
15001	600		XCV	Pale green	0.16	0.27	0.03	Spherical disc
15002	600		XCV	Orange	0.27	0.54	0.17	Spherical disc
15003	600		XCV	Red	0.07	0.1	0.24	Disc
15004	600		XCV	Red	0.05	0.38	0.03	Disc
15005	600		XCV	Brown	0.32	0.42	0.14	Spherical disc
15006	600		XCV	Pale blue	0.41	0.38	0.13	Tube
15007	600		XCV	Pale green	0.29	0.43	0.12	Spherical disc
15008	600		XCV	Dark blue	0.17	0.33	0.04	Spherical disc
15009	600		XCV	Dark blue	0.17	0.36	0.06	Spherical disc
15010	600		XCV	Orange	0.11	0.4	0.06	Spherical disc
15011	600		XCV	Orange	0.25	0.46	0.12	Spherical disc
15012	600		XCV	Dark blue	0.29	0.55	0.17	Spherical disc
15013	600		XCV	Orange	0.26	0.36	0.08	Spherical disc
15014	600		XCV	Pale green	0.15	0.28	0.03	Spherical disc
15120	600		XCV	Pale blue	0.24	0.31	0.07	Spherical disc
15121	600		XCV	Black	0.33	0.36	0.08	Spherical disc
15122	600		XCV	Brown	0.33	0.39	0.13	Spherical disc
15123	600		XCV	Pale blue	0.26	0.33	0.07	Spherical disc
15124	600		XCV	Orange	0.29	0.37	0.11	Spherical disc
15125	600		XCV	Dark blue	0.58	0.47	0.27	Sphere
15126	600		XCV	Red	0.15	0.37	0.07	Spherical disc
15127	600		XCV	Pale green	0.34	0.33	0.09	Sphere
15128	600		XCV	yellow	0.18	0.27	0.05	Spherical disc
15130	600		XCV	Orange	0.07	0.21	0.01	Spherical disc
15131	600		XCV	yellow	0.15	0.38	0.06	Spherical disc
15132	600		XCV	Pale green	0.24	0.24	0.05	Spherical disc
15133	600		XCV	yellow	0.08	0.47	0.07	Disc
15134	600		XCV	Red	0.08	0.94	0.22	Disc
15135	600		XCV	Red	0.12	1.14	0.21	Disc
15137	607	se	LXXI	Red	0.07	1.11	0.15	Disc
15138	607	se	LXXI	Red	0.06	1.01	0.12	Disc
15139	607	se	LXXI	Red	0.07	0.98	0.14	Disc
15140	605	sw	LXXXIII	Red	0.09	1.07	0.21	Disc
15141	605	sw	LXXXIII	Red	0.09	0.91	0.22	Disc
15142	605	sw	LXXXIII	Red	0.08	0.99	0.15	Disc
15143	605	sw	LXXXIII	Red	0.15	0.94	0.24	Disc
15144	605	sw	LXXXIII	Red	0.08	0.97	0.12	Disc
15145	605	sw	LXXXIII	Red	0.05	0.43	0.06	Disc
15146	605	sw	LXXXIII	Red	0.05	0.68	0.07	Disc
15147	605	sw	LXXXIII	White	0.79	0.59	0.69	Tube
15148	606	se	LXX	Red	0.07	0.86	0.11	Disc
15149	606	se	LXX	Red	0.07	0.95	0.22	Disc
15150	632	nr	LXXXIII	Red	0.07	0.77	0.08	Disc
15151	616	se	LXX	Red	0.12	0.95	0.25	Disc
15158	601	se	LXXXI	Red	0.08	0.76	0.1	Disc
15159	601	se	LXXXI	Red	0.06	0.69	0.03	Disc
15163	601	se	LXXXI	Red	0.11	0.98	0.18	Disc
15164	601	se	LXXXI	Red	0.12	0.97	0.1	Disc
15165	638	sw	LXXXIII	Red	0.09	0.95	0.24	Disc
15167	615	ne	LXVIII	Red	0.07	1.08	0.17	Disc
15168	615	ne	LXVIII	Red	0.11	1.07	0.19	Disc
15169	615	ne	LXVIII	Red	0.11	1.12	0.26	Disc
15170	615	ne	LXVIII	Red	0.11	1.14	0.29	Disc
15171	615	ne	LXVIII	Red	0.13	1.07	0.17	Disc
15172	615	ne	LXVIII	Red	0.11	0.92	0.13	Disc
15173	615	ne	LXVIII	Red	0.09	0.86	0.09	Disc
15174	615	ne	LXVIII	Red	0.07	1.16	0.19	Disc
15175	615	ne	LXVIII	Red	0.06	1.13	0.13	Disc
15176	615	ne	LXVIII	Red	0.11	1.12	0.31	Disc
15177	615	ne	LXVIII	Red	0.11	1.15	0.18	Disc
15178	615	ne	LXVIII	Red	0.13	0.96	0.13	Disc
15179	615	ne	LXVIII	Red	0.09	0.99	0.23	Disc
15180	615	ne	LXVIII	Red	0.08	0.86	0.08	Disc
15181	615	ne	LXVIII	Red	0.11	0.87	0.1	Disc
15182	615	ne	LXVIII	Red	0.1	0.89	0.09	Disc
15183	615	ne	LXVIII	Red	0.11	0.98	0.16	Disc
15184	615	ne	LXVIII	Red	0.08	0.81	0.05	Disc
15185	615	ne	LXVIII	Red	0.06	0.87	0.16	Disc
15186	615	ne	LXVIII	Red	0.07	0.58	0.06	Disc
15187	615	ne	LXVIII	Red	0.09	0.96	0.11	Disc
15188	615	ne	LXVIII	Red	0.09	0.69	0.04	Disc
15189	615	ne	LXVIII	Red	0.09	0.25	0.07	Disc
15190	615	ne	LXVIII	Red	0.04	0.66	0.06	Disc
15191	615	ne	LXVIII	Red	0.13	1.15	0.14	Disc
15192	615	ne	LXVIII	Red	0.08	0.95	0.06	Disc
15192	615	ne	LXVIII	Red	0.08	0.95	0.06	Disc
15193	615	ne	LXVIII	Red	0.09	0.89	0.13	Disc
15194	615	ne	LXVIII	Red	0.08	0.83	0.07	Disc

Figure 7.2

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15195	615	ne	LXVIII	Red	0.07	0.54	0.95	Disc
15196	615	ne	LXVIII	Red	0.07	0.91	0.07	Disc
15197	615	ne	LXVIII	Red	0.12	0.73	0.12	Disc
15207	615	ne	LXVIII	Red	0.08	1.04	0.24	Disc
15208	615	ne	LXVIII	Red	0.09	0.84	0.08	Disc
15209	615	ne	LXVIII	Red	0.12	0.78	0.16	Disc
15210	615	ne	LXVIII	Red	0.08	1.06	0.12	Disc
15211	615	ne	LXVIII	Red	0.07	0.84	0.15	Disc
15212	615	ne	LXVIII	Red	0.08	0.54	0.06	Disc
15213	615	ne	LXVIII	Red	0.08	0.93	0.13	Disc
15214	615	ne	LXVIII	Red	0.05	1.11	0.1	Disc
15215	615	ne	LXVIII	Red	0.11	1.08	0.15	Disc
15216	615	ne	LXVIII	Red	0.05	1.15	0.13	Disc
15217	615	ne	LXVIII	Red	0.09	1.14	0.16	Disc
15218	615	ne	LXVIII	Red	0.09	0.88	0.09	Disc
15219	615	ne	LXVIII	Red	0.08	1.07	0.13	Disc
15220	615	ne	LXVIII	Red	0.08	0.86	0.08	Disc
15221	615	ne	LXVIII	Red	0.08	1.05	0.11	Disc
15222	615	ne	LXVIII	Red	0.11	0.86	0.18	Disc
15223	615	ne	LXVIII	Red	0.11	0.85	0.1	Disc
15224	615	ne	LXVIII	Red	0.11	0.84	0.11	Disc
15225	615	ne	LXVIII	Red	0.14	0.93	0.14	Disc
15226	615	ne	LXVIII	Red	0.05	0.71	0.03	Disc
15227	615	ne	LXVIII	Red	0.12	0.81	0.1	Disc
15231	615	ne	LXVIII	Red	0.07	0.86	0.08	Disc
15232	615	ne	LXVIII	Red	0.09	0.84	0.07	Disc
15233	615	ne	LXVIII	Red	0.08	0.88	0.07	Disc
15234	615	ne	LXVIII	Red	0.11	0.85	0.09	Disc
15235	615	ne	LXVIII	Red	0.09	0.97	0.04	Disc
15236	615	ne	LXVIII	Red	0.08	0.89	0.1	Disc
15237	615	ne	LXVIII	Red	0.08	0.82	0.09	Disc
15238	615	ne	LXVIII	Red	0.09	0.92	0.07	Disc
15239	615	ne	LXVIII	Red	0.08	0.59	0.05	Disc
15240	615	ne	LXVIII	Red	0.08	0.75	0.06	Disc
15241	615	ne	LXVIII	Red	0.08	0.54	0.04	Disc
15242	615	ne	LXVIII	Red	0.14	1.05	0.3	Disc
15243	615	ne	LXVIII	Red	0.08	1.15	0.25	Disc
15244	615	ne	LXVIII	Red	0.12	1.05	0.19	Disc
15245	615	ne	LXVIII	Red	0.14	1.09	0.13	Disc
15246	615	ne	LXVIII	Red	0.14	1.08	0.32	Disc
15247	615	ne	LXVIII	Red	0.15	0.94	0.3	Disc
15248	615	ne	LXVIII	Red	0.08	0.82	0.14	Disc
15249	615	ne	LXVIII	Red	0.09	1	0.11	Disc
15250	615	ne	LXVIII	Red	0.11	0.87	0.09	Disc
15251	615	ne	LXVIII	Red	0.05	0.56	0.03	Disc
15252	615	ne	LXVIII	Red	0.06	0.88	0.09	Disc
15253	615	ne	LXVIII	Red	0.12	1.07	0.13	Disc
15254	615	ne	LXVIII	Red	0.12	0.87	0.09	Disc
15255	615	ne	LXVIII	Red	0.05	0.87	0.08	Disc
15256	615	ne	LXVIII	Red	0.06	0.53	0.06	Disc
15257	615	ne	LXVIII	Red	0.12	1.04	0.11	Disc
15258	615	ne	LXVIII	Red	0.1	0.82	0.07	Disc
15259	615	ne	LXVIII	Red	0.12	0.78	0.18	Disc
15260	615	ne	LXVIII	Red	0.11	0.82	0.17	Disc
15261	615	ne	LXVIII	Red	0.09	1.03	0.1	Disc
15262	615	ne	LXVIII	Red	0.12	0.77	0.06	Disc
15263	615	ne	LXVIII	Red	0.06	0.65	0.02	Disc
15264	615	ne	LXVIII	Brown	0.64	0.34	0.13	Tube
15265	615	ne	LXVIII	Pale green	0.34	0.48	0.15	Spherical disc
15268	798	sw	XLVI	Red	0.08	0.39	0.04	Disc
15272	616	se	LXX	Red	0.13	0.96	0.12	Disc
15273	616	se	LXX	Red	0.14	1.15	0.19	Disc
15274	616	se	LXX	Red	0.14	0.83	0.14	Disc
15275	616	se	LXX	Red	0.11	0.97	0.26	Disc
15276	616	se	LXX	Red	0.11	0.97	0.31	Disc
15277	616	se	LXX	Red	0.04	0.71	0.08	Disc
15278	616	se	LXX	Red	0.07	0.56	0.07	Disc
15280	630	nw	LXXVI	Red	0.06	0.95	0.1	Disc
15281	630	nw	LXXVI	Red	0.12	0.98	0.17	Disc
15282	630	nw	LXXVI	Red	0.12	0.96	0.11	Disc
15283	630	nw	LXXVI	Red	0.13	0.81	0.06	Disc
15284	630	nw	LXXVI	Red	0.06	0.85	0.13	Disc
15285	630	nw	LXXVI	Red	0.12	0.96	0.13	Disc
15286	630	nw	LXXVI	Red	0.11	1.03	0.15	Disc
15287	630	nw	LXXVI	Red	0.11	1.13	0.17	Disc
15288	630	nw	LXXVI	Red	0.08	0.82	0.08	Disc
15289	630	nw	LXXVI	Red	0.07	0.99	0.11	Disc
15290	630	nw	LXXVI	Red	0.19	0.97	0.17	Disc
15291	630	nw	LXXVI	Red	0.11	1.05	0.14	Disc
15292	630	nw	LXXVI	Red	0.11	1	0.15	Disc
15293	630	nw	LXXVI	Red	0.08	0.81	0.06	Disc
15294	630	nw	LXXVI	Red	0.09	0.83	0.08	Disc

Appendix

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15295	630	nw	LXXVI	Red	0.06	0.95	0.12	Disc
15307	601	se	LXXII	Red	0.11	0.88	0.11	Disc
15308	601	se	LXXII	Red	0.12	1.19	0.38	Disc
15309	601	se	LXXII	Red	0.09	0.95	0.27	Disc
15310	601	se	LXXII	Red	0.12	0.98	0.25	Disc
15311	601	se	LXXII	Red	0.07	0.96	0.26	Disc
15312	601	se	LXXII	Red	0.09	1.09	0.16	Disc
15313	601	se	LXXII	Red	0.07	0.85	0.1	Disc
15314	601	se	LXXII	Red	0.06	0.44	0.03	Disc
15315	601	se	LXXII	Red	0.11	0.85	0.1	Disc
15316	601	se	LXXII	Red	0.08	0.99	0.13	Disc
15317	601	se	LXXII	Red	0.09	1.13	0.15	Disc
15318	601	se	LXXII	Red	0.12	0.97	0.16	Disc
15319	601	se	LXXII	Red	0.12	1.07	0.17	Disc
15320	601	se	LXXII	Red	0.06	0.84	0.1	Disc
15321	601	se	LXXII	Red	0.07	0.93	0.09	Disc
15322	601	se	LXXII	Red	0.07	0.92	0.1	Disc
15323	601	se	LXXII	Red	0.07	1.05	0.12	Disc
15324	601	se	LXXII	Red	0.06	0.72	0.07	Disc
15328	632	nw	LXXXIII	Red	0.11	0.89	0.2	Disc
15329	632	nw	LXXXIII	Red	0.11	1	0.27	Disc
15330	632	nw	LXXXIII	Red	0.12	1.17	0.21	Disc
15331	632	nw	LXXXIII	Red	0.12	0.93	0.24	Disc
15332	632	nw	LXXXIII	Red	0.07	0.66	0.11	Disc
15333	632	nw	LXXXIII	Red	0.11	1.01	0.16	Disc
15334	632	nw	LXXXIII	Red	0.13	0.84	0.17	Disc
15335	632	nw	LXXXIII	Red	0.13	0.63	0.09	Disc
15336	632	nw	LXXXIII	Red	0.12	0.67	0.12	Disc
15337	632	nw	LXXXIII	Red	0.06	0.79	0.07	Disc
15338	632	nw	LXXXIII	Red	0.08	0.93	0.1	Disc
15339	632	nw	LXXXIII	Red	0.13	0.63	0.1	Disc
15340	632	nw	LXXXIII	Red	0.11	0.49	0.05	Disc
15344	632	nw	LXXXIII	Red	0.07	0.71	0.04	Disc
15345	632	nw	LXXXIII	Red	0.06	0.62	0.01	Disc
15346	632	nw	LXXXIII	Red	0.07	0.64	0.03	Disc
15347	632	nw	LXXXIII	Red	0.07	0.62	0.03	Disc
15348	632	nw	LXXXIII	Red	0.07	0.61	0.02	Disc
15349	632	nw	LXXXIII	White	0.06	0.47	0.03	Disc
15354	605	sw	LXXXIII	Red	0.08	0.93	0.2	Disc
15355	615	ne	LXVIII	Red	0.12	0.57	0.06	Disc
15356	615	ne	LXVIII	Red	0.08	0.78	0.13	Disc
15357	615	ne	LXVIII	Red	0.13	1.08	0.37	Disc
15358	615	ne	LXVIII	Red	0.1	0.78	0.13	Disc
15359	615	ne	LXVIII	Red	0.07	0.77	0.06	Disc
15360	615	ne	LXVIII	Red	0.12	1.07	0.17	Disc
15361	615	ne	LXVIII	Red	0.08	1.12	0.15	Disc
15362	615	ne	LXVIII	Red	0.12	1	0.16	Disc
15363	602	nw	LXXII	Red	0.08	0.87	0.18	Disc
15364	602	nw	LXXII	Red	0.11	0.72	0.1	Disc
15365	601	se	LXXII	Red	0.14	1.03	0.34	Disc
15366	601	se	LXXII	Red	0.15	1.05	0.31	Disc
15367	601	se	LXXII	Red	0.11	0.89	0.19	Disc
15368	601	se	LXXII	Red	0.11	0.92	0.18	Disc
15369	601	se	LXXII	Red	0.09	0.93	0.19	Disc
15370	601	se	LXXII	Red	0.06	0.82	0.13	Disc
15371	601	se	LXXII	Red	0.11	0.89	0.09	Disc
15372	601	se	LXXII	Red	0.11	1.09	0.13	Disc
15373	601	se	LXXII	Red	0.11	0.44	0.04	Disc
15374	601	se	LXXII	Red	0.05	0.35	0.02	Disc
15375	601	se	LXXII	Red	0.08	0.78	0.07	Disc
15378	601	se	LXXII	Red	0.11	0.43	0.05	Disc
15379	601	se	LXXII	Transparent	0.59	1.18	0.62	Sphere
15400	605	sw	LXXXIII	Red	0.07	0.92	0.1	Disc
15401	602	nw	LXXII	Red	1.12	1.07	0.37	Disc
15402	602	nw	LXXII	Red	0.14	0.96	0.25	Disc
15403	602	nw	LXXII	Red	0.12	0.95	0.13	Disc
15404	602	nw	LXXII	Red	0.11	0.97	0.26	Disc
15405	602	nw	LXXII	Red	0.13	0.98	0.29	Disc
15406	602	nw	LXXII	Red	0.12	0.87	0.19	Disc
15407	602	nw	LXXII	Red	0.1	1.03	0.27	Disc
15408	602	nw	LXXII	Red	0.09	0.93	0.21	Disc
15409	602	nw	LXXII	Red	0.11	1.07	0.15	Disc
15410	602	nw	LXXII	Red	0.07	0.99	0.23	Disc
15411	602	nw	LXXII	Red	0.1	0.93	0.1	Disc
15412	602	nw	LXXII	Red	0.11	1.01	0.3	Disc
15413	602	nw	LXXII	Red	0.11	0.85	0.18	Disc
15414	602	nw	LXXII	Red	0.09	1.03	0.13	Disc
15415	602	nw	LXXII	Red	0.11	0.81	0.17	Disc
15416	602	nw	LXXII	Red	0.08	1.04	0.12	Disc
15417	602	nw	LXXII	Red	0.08	0.73	0.07	Disc
15418	602	nw	LXXII	Red	0.11	0.71	0.05	Disc
15419	602	nw	LXXII	Pale green	0.11	0.54	0.06	Disc

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15420	602	nw	LXXII	Red	0.06	0.8	0.06	Disc
15421	602	nw	LXXII	Pale green	0.81	0.47	0.1	Squashed collared sphere
15422	602	nw	LXXII	Dark blue	0.43	0.49	0.18	Sphere
15423	602	nw	LXXII	Pale green	0.26	0.26	0.03	Sphere
15425	615	ne	LXVIII	Red	0.12	0.82	0.19	Disc
15426	615	ne	LXVIII	Red	0.09	0.86	0.15	Disc
15427	615	ne	LXVIII	Red	0.09	0.86	0.07	Disc
15428	615	ne	LXVIII	Red	0.09	0.88	0.23	Disc
15429	615	ne	LXVIII	Red	0.06	1.07	0.11	Disc
15430	615	ne	LXVIII	Red	0.12	1.02	0.12	Disc
15433	635	nw	LXXIII	Red	0.11	0.95	0.1	Disc
15434	635	nw	LXXIII	Red	0.09	1.09	0.18	Disc
15435	635	nw	LXXIII	Red	0.14	1.01	0.14	Disc
15436	635	nw	LXXIII	Red	0.09	0.75	0.06	Disc
15437	659	ne	LXXII	Red	0.11	0.93	0.17	Disc
15438	659	ne	LXXII	Red	0.09	0.94	0.21	Disc
15439	659	ne	LXXII	Red	0.08	0.89	0.2	Disc
15440	659	ne	LXXII	Red	0.08	0.82	0.17	Disc
15441	659	ne	LXXII	Red	0.11	0.94	0.23	Disc
15442	659	ne	LXXII	Red	0.08	0.96	0.25	Disc
15443	643	nw	LXXII	Red	0.08	0.88	0.19	Disc
15444	643	nw	LXXII	Red	0.06	1.11	0.27	Disc
15445	643	nw	LXXII	Red	0.06	1.09	0.14	Disc
15446	643	nw	LXXII	Red	0.07	1.08	0.05	Disc
15447	643	nw	LXXII	Red	0.06	0.79	0.06	Disc
15448	643	nw	LXXII	Red	0.11	0.75	0.1	Disc
15449	643	nw	LXXII	Red	0.07	0.83	0.08	Disc
15450	615	ne	LXVIII	Red	0.08	1.01	0.2	Disc
15451	615	ne	LXVIII	Red	0.12	1.06	0.26	Disc
15452	615	ne	LXVIII	Red	0.11	0.69	0.12	Disc
15453	615	ne	LXVIII	Red	0.05	0.89	0.06	Disc
15454	615	ne	LXVIII	Red	0.11	1.2	0.18	Disc
15455	615	ne	LXVIII	Red	0.08	0.92	0.16	Disc
15456	615	ne	LXVIII	Red	0.08	0.7	0.13	Disc
15457	615	ne	LXVIII	Red	0.07	0.75	0.04	Disc
15458	615	ne	LXVIII	Red	0.08	1.05	0.12	Disc
15459	615	ne	LXVIII	Red	0.09	0.93	0.09	Disc
15460	615	ne	LXVIII	Red	0.06	0.82	0.07	Disc
15462	656	nw	LXXIII	Red	0.11	1.24	0.19	Disc
15463	635	nw	LXXIII	Red	0.05	0.57	0.05	Disc
15466	615	ne	LXVIII	Red	0.05	0.87	0.08	Disc
15467	615	ne	LXVIII	Red	0.09	0.79	0.05	Disc
15468	615	ne	LXVIII	Red	0.08	0.86	0.16	Disc
15469	615	ne	LXVIII	Red	0.06	1.07	0.14	Disc
15470	615	ne	LXVIII	Red	0.07	0.9	0.11	Disc
15471	615	ne	LXVIII	Red	0.08	0.77	0.07	Disc
15472	615	ne	LXVIII	Red	0.08	1.06	0.12	Disc
15473	615	ne	LXVIII	Red	0.11	1.16	0.23	Disc
15474	615	ne	LXVIII	Red	0.08	0.73	0.13	Disc
15475	615	ne	LXVIII	Red	0.14	0.77	0.08	Disc
15476	615	ne	LXVIII	Red	0.07	0.84	0.07	Disc
15477	615	ne	LXVIII	Red	0.06	0.75	0.07	Disc
15478	615	ne	LXVIII	Red	0.06	0.94	0.09	Disc
15479	615	ne	LXVIII	Red	0.09	0.97	0.25	Disc
15480	615	ne	LXVIII	Red	0.08	0.93	0.21	Disc
15481	615	ne	LXVIII	Red	0.09	1.08	0.13	Disc
15482	615	ne	LXVIII	Red	0.09	0.68	0.1	Disc
15483	615	ne	LXVIII	Red	0.06	0.65	0.08	Disc
15484	615	ne	LXVIII	Red	0.06	0.97	0.1	Disc
15485	615	ne	LXVIII	Red	0.08	0.83	0.07	Disc
15486	615	ne	LXVIII	Red	0.08	0.87	0.1	Disc
15487	615	ne	LXVIII	Red	0.07	0.79	0.06	Disc
15488	615	ne	LXVIII	Red	0.08	0.89	0.18	Disc
15489	615	ne	LXVIII	Red	0.09	0.82	0.05	Disc
15490	615	ne	LXVIII	Red	0.07	0.82	0.09	Disc
15491	615	ne	LXVIII	Red	0.07	0.64	0.07	Disc
15492	615	ne	LXVIII	Red	0.07	1.1	0.16	Disc
15493	615	ne	LXVIII	Red	0.08	0.76	0.07	Disc
15494	615	ne	LXVIII	Red	0.11	1.05	0.15	Disc
15495	615	ne	LXVIII	Red	0.12	0.89	0.15	Disc
15496	615	ne	LXVIII	Red	0.08	0.78	0.11	Disc
15497	615	ne	LXVIII	Red	0.07	0.67	0.08	Disc
15498	615	ne	LXVIII	Red	0.05	0.52	0.08	Disc
15499	615	ne	LXVIII	Red	0.06	0.59	0.04	Disc
15500	615	ne	LXVIII	Red	0.12	1.03	0.14	Disc
15501	615	ne	LXVIII	Red	0.08	0.82	0.67	Disc
15502	615	ne	LXVIII	Red	0.05	0.75	0.05	Disc
15503	615	ne	LXVIII	Red	0.08	0.82	0.07	Disc
15504	615	ne	LXVIII	Red	0.11	0.79	0.08	Disc
15505	615	ne	LXVIII	Red	0.08	0.81	0.06	Disc
15506	615	ne	LXVIII	Red	0.07	0.44	0.03	Disc
15507	615	ne	LXVIII	Red	0.07	0.84	0.07	Disc

Appendix

Bf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15508	615	ne	LXVIII	Red	0.08	0.83	0.09	Disc
15509	615	ne	LXVIII	Red	0.05	0.81	0.05	Disc
15530	615	ne	LXVIII	Red	0.08	0.45	0.05	Disc
15531	615	ne	LXVIII	Red	0.05	0.68	0.06	Disc
15532	615	ne	LXVIII	Red	0.11	0.46	0.05	Disc
15533	615	ne	LXVIII	Red	0.07	0.38	0.03	Disc
15534	615	ne	LXVIII	Red	0.06	0.83	0.05	Disc
15535	615	ne	LXVIII	Red	0.06	0.83	0.07	Disc
15536	615	ne	LXVIII	Red	0.07	0.61	0.05	Disc
15537	615	ne	LXVIII	Red	0.09	0.89	0.08	Disc
15538	615	ne	LXVIII	Red	0.07	0.72	0.04	Disc
15539	615	ne	LXVIII	Red	0.08	0.62	0.05	Disc
15540	615	ne	LXVIII	Red	0.11	0.76	0.08	Disc
15541	615	ne	LXVIII	Red	0.08	0.58	0.04	Disc
15542	615	ne	LXVIII	Red	0.07	0.58	0.02	Disc
15543	615	ne	LXVIII	Red	0.04	0.37	0.02	Disc
15544	635	nw	LXXIII	Red	0.13	1.01	0.26	Disc
15546	600		XCV	Dark blue	0.14	0.59	0.09	Disc
15547	600		XCV	Brown	0.29	0.38	0.08	Spherical disc
15548	600		XCV	Pale green	0.41	0.51	0.09	Spherical disc
15549	600		XCV	Pale green	0.09	0.26	0.02	Spherical disc
15550	600		XCV	Brown	0.16	0.37	0.06	Spherical disc
15551	600		XCV	Pale blue	0.4	0.35	0.1	Undiagnostic
15556	635	nw	LXXIII	Red	0.1	0.74	0.11	Disc
15557	635	nw	LXXIII	Red	0.06	0.41	0.03	Disc
15558	635	nw	LXXIII	Red	0.07	1.17	0.17	Disc
15559	635	nw	LXXIII	Red	0.14	0.97	0.19	Disc
15560	635	nw	LXXIII	Red	0.08	1.26	0.21	Disc
15561	635	nw	LXXIII	Red	0.1	0.87	0.16	Disc
15562	635	nw	LXXIII	Red	0.08	1.05	0.16	Disc
15563	635	nw	LXXIII	Red	0.08	0.99	0.16	Disc
15564	635	nw	LXXIII	Red	0.12	1.04	0.16	Disc
15565	635	nw	LXXIII	Red	0.08	0.92	0.18	Disc
15566	635	nw	LXXIII	Red	0.12	0.92	0.09	Disc
15567	600		XCV	Brown	0.14	0.33	0.04	Spherical disc
15568	600		XCV	Pale green	0.26	0.26	0.06	Sphere
15569	600		XCV	Brown	0.38	0.47	0.19	Sphere
15570	600		XCV	Dark blue	0.21	0.36	0.07	Spherical disc
15571	600		XCV	Pale blue	0.15	0.24	0.01	Spherical disc
15572	600		XCV	Dark blue	0.35	0.51	0.24	Notched prism
15573	600		XCV	Dark blue	0.47	0.29	0.1	Tube
15574	600		XCV	Brown	0.12	0.35	0.05	Spherical disc
15575	600		XCV	Dark blue	0.17	0.19	0.04	Spherical disc
15576	600		XCV	Brown	0.25	0.27	0.04	Spherical disc
15577	600		XCV	Brown	0.15	0.34	0.04	Spherical disc
15578	600		XCV	Brown	0.19	0.25	0.04	Spherical disc
15579	600		XCV	Dark blue	0.24	0.41	0.04	Spherical disc
15580	600		XCV	Pale green	0.24	0.49	0.09	Squashed sphere
15581	600		XCV	Pale blue	0.31	0.28	0.03	Spherical disc
15582	600		XCV	Red	0.07	0.72	0.05	Disc
15583	600		XCV	Brown	0.17	0.34	0.05	Spherical disc
15584	635	nw	LXXIII	Red	0.09	0.98	0.18	Disc
15585	635	nw	LXXIII	Red	0.09	0.77	0.08	Disc
15586	635	nw	LXXIII	Red	0.07	0.82	0.06	Disc
15587	635	nw	LXXIII	Red	0.06	0.41	0.02	Disc
15588	635	nw	LXXIII	Red	0.08	1.14	0.15	Disc
15589	635	nw	LXXIII	Red	0.09	1.15	0.16	Disc
15590	635	nw	LXXIII	Red	0.05	0.63	0.02	Disc
15591	634	nw	LXIX	Red	0.13	0.8	0.09	Disc
15592	634	nw	LXIX	Red	0.12	1.12	0.16	Disc
15593	634	nw	LXIX	Red	0.13	1.02	0.17	Disc
15594	634	nw	LXIX	Red	0.08	0.88	0.13	Disc
15595	634	nw	LXIX	Red	0.07	0.83	0.11	Disc
15596	604	nw	LXXV	Red	0.12	0.75	0.11	Disc
15597	604	nw	LXXV	Red	0.09	1.02	0.23	Disc
15598	604	nw	LXXV	Red	0.11	0.94	0.25	Disc
15622	605	sw	LXXXIII	Dark blue	0.79	0.81	0.32	Collared sphere
15652	503	ne	LXXVI	Red	0.15	0.95	0.3	Disc
15653	697	ne	LXIV	Red	0.11	0.65	0.09	Disc
15654	697	ne	LXIV	Red	0.11	1.05	0.11	Disc
15655	693	nw	LXXXIV	Red	0.1	0.84	0.16	Disc
15656	693	nw	LXXXIV	Red	0.12	1.16	0.23	Disc
15657	693	nw	LXXXIV	Red	0.07	0.83	0.08	Disc
15658	693	nw	LXXXIV	Red	0.08	0.87	0.05	Disc
15659	693	nw	LXXXIV	Red	0.08	0.68	0.07	Disc
15660	670	sw	LXIV	Red	0.11	1.12	0.3	Disc
15661	670	sw	LXIV	Red	0.11	0.91	0.2	Disc
15662	670	sw	LXIV	Red	0.11	1	0.13	Disc
15663	670	sw	LXIV	Red	0.11	0.88	0.17	Disc
15664	670	sw	LXIV	Red	0.15	1.11	0.32	Disc
15665	670	sw	LXIV	Red	0.09	0.95	0.19	Disc
15666	670	sw	LXIV	Red	0.13	0.93	0.21	Disc

Anuradhapura: The Artefacts

Sf. no.	Context	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15667	670	sw	LXIV	Red	0.11	0.91	0.18	Disc
15668	670	sw	LXIV	Red	0.11	0.94	0.18	Disc
15669	670	sw	LXIV	Red	0.13	0.97	0.05	Disc
15670	670	sw	LXIV	Red	0.08	0.95	0.14	Disc
15671	670	sw	LXIV	Red	0.12	0.83	0.16	Disc
15672	670	sw	LXIV	Red	0.1	0.77	0.12	Disc
15673	670	sw	LXIV	Red	0.09	0.87	0.14	Disc
15674	670	sw	LXIV	Red	0.09	1.01	0.11	Disc
15675	670	sw	LXIV	Red	0.11	0.42	0.04	Disc
15676	670	sw	LXIV	Red	0.09	0.86	0.08	Disc
15677	670	sw	LXIV	Red	0.16	0.68	0.12	Disc
15678	670	sw	LXIV	Red	0.08	0.47	0.03	Disc
15680	503	ne	LXXVI	Red	0.14	0.81	0.13	Disc
15681	503	ne	LXXVI	Red	0.09	0.75	0.06	Disc
15689	714	sw	LIV	Red	0.12	0.99	0.25	Disc
15690	714	sw	LIV	Red	0.13	1.16	0.39	Disc
15691	714	sw	LIV	Red	0.11	0.98	0.27	Disc
15692	663	ne	LXVI	Red	0.12	0.84	0.06	Disc
15693	663	ne	LXVI	Red	0.13	0.87	0.08	Disc
15694	663	ne	LXVI	Red	0.08	0.82	0.05	Disc
15695	663	ne	LXVI	Red	0.09	0.83	0.06	Disc
15696	663	ne	LXVI	Red	0.09	0.75	0.05	Disc
15697	663	ne	LXVI	Red	0.08	0.86	0.06	Disc
15698	663	ne	LXVI	Red	0.09	0.81	0.05	Disc
15699	663	ne	LXVI	Red	0.13	0.86	0.08	Disc
15700	663	ne	LXVI	Red	0.08	0.55	0.06	Disc
15701	663	ne	LXVI	Red	0.12	0.76	0.05	Disc
15702	663	ne	LXVI	Red	0.15	0.97	0.13	Disc
15703	663	ne	LXVI	Red	0.09	0.74	0.04	Disc
15704	663	ne	LXVI	Red	0.08	0.52	0.02	Disc
15705	663	ne	LXVI	Red	0.12	0.88	0.09	Disc
15706	663	ne	LXVI	Red	0.1	0.86	0.09	Disc
15707	663	ne	LXVI	Red	0.13	0.48	0.07	Disc
15708	663	ne	LXVI	Red	0.09	0.82	0.08	Disc
15709	663	ne	LXVI	Red	0.08	0.81	0.08	Disc
15710	663	ne	LXVI	Red	0.11	0.81	0.06	Disc
15711	698	nw	LXIV	Red	0.09	0.4	0.05	Disc
15712	698	nw	LXIV	Red	0.13	0.99	0.27	Disc
15713	698	nw	LXIV	Red	0.12	0.97	0.24	Disc
15714	698	nw	LXIV	Red	0.12	1.13	0.16	Disc
15715	698	nw	LXIV	Red	0.12	0.87	0.11	Disc
15716	698	nw	LXIV	Red	0.08	0.55	0.04	Disc
15717	698	nw	LXIV	Red	0.11	0.45	0.05	Disc
15718	698	nw	LXIV	Red	0.08	0.4	0.02	Disc
15719	698	nw	LXIV	Red	0.11	0.54	0.08	Disc
15720	698	nw	LXIV	Red	0.11	0.83	0.09	Disc
15721	698	nw	LXIV	Red	0.1	0.68	0.1	Disc
15722	698	nw	LXIV	Red	0.09	0.82	0.07	Disc
15723	698	nw	LXIV	Red	0.07	0.51	0.02	Disc
15724	698	nw	LXIV	Red	0.09	0.52	0.02	Disc
15725	698	nw	LXIV	Red	0.08	0.48	0.04	Disc
15726	698	nw	LXIV	Red	0.13	1.04	0.18	Disc
15727	698	nw	LXIV	Red	0.09	0.34	0.02	Disc
15728	698	nw	LXIV	Red	0.12	1.18	0.18	Disc
15729	698	nw	LXIV	Red	0.13	0.79	0.11	Disc
15730	698	nw	LXIV	Red	0.08	0.53	0.04	Disc
15731	698	nw	LXIV	Red	0.09	0.4	0.03	Disc
15732	698	nw	LXIV	Red	0.11	0.39	0.03	Disc
15733	698	nw	LXIV	Red	0.08	0.57	0.04	Disc
15734	698	nw	LXIV	Red	0.1	0.55	0.05	Disc
15735	698	nw	LXIV	Red	0.08	0.41	0.03	Disc
15736	697	ne	LXIV	Red	0.09	1.04	0.12	Disc
15737	670	sw	LXIV	Red	0.13	0.98	0.28	Disc
15738	670	sw	LXIV	Red	0.11	0.85	0.19	Disc
15739	670	sw	LXIV	Red	0.12	0.87	0.18	Disc
15740	670	sw	LXIV	Red	0.14	0.92	0.25	Disc
15741	670	sw	LXIV	Red	0.13	0.75	0.05	Disc
15742	670	sw	LXIV	Red	0.07	0.56	0.06	Disc
15743	679	nw	LXVII	Red	0.09	0.76	0.03	Disc
15744	679	nw	LXVII	Red	0.09	1.02	0.12	Disc
15745	698	nw	LXIV	Red	0.08	0.66	0.04	Disc
15746	698	nw	LXIV	Red	0.11	0.83	0.18	Disc
15747	698	nw	LXIV	Red	0.07	0.73	0.04	Disc
15748	698	nw	LXIV	Red	0.09	0.75	0.07	Disc
15749	698	nw	LXIV	Red	0.13	0.84	0.2	Disc
15750	698	nw	LXIV	Red	0.08	0.86	0.07	Disc
15751	698	nw	LXIV	Red	0.12	0.73	0.15	Disc
15752	698	nw	LXIV	Red	0.08	0.54	0.02	Disc
15753	698	nw	LXIV	Red	0.07	0.45	0.04	Disc
15754	698	nw	LXIV	Red	0.13	0.86	0.19	Disc
15755	698	nw	LXIV	Red	0.11	0.82	0.16	Disc
15756	663	ne	LXVI	Red	0.08	0.5	0.05	Disc

Appendix

Sf. no.	Contant	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
15757	663	ne	LXVI	Red	0.09	0.83	0.05	Disc
15758	663	ne	LXVI	Red	0.11	0.78	0.07	Disc
15759	663	ne	LXVI	Red	0.11	0.39	0.04	Disc
15760	663	ne	LXVI	Red	0.08	0.91	0.08	Disc
15761	663	ne	LXVI	Red	0.11	0.42	0.04	Disc
15762	663	ne	LXVI	Red	0.08	0.96	0.08	Disc
15763	663	ne	LXVI	Red	0.08	0.57	0.05	Disc
15764	663	ne	LXVI	Red	0.08	0.76	0.04	Disc
15765	697	ne	LXIV	Red	0.08	0.87	0.04	Disc
15766	698	nw	LXIV	Red	0.12	0.47	0.13	Disc
15767	663	ne	LXVI	Red	0.12	0.78	0.14	Disc
15836	659	se	LXXII	Red	0.13	1.04	0.31	Disc
15838	659	se	LXXII	Red	0.11	0.94	0.15	Disc
15839	659	se	LXXII	Red	0.12	1.15	0.17	Disc
15840	659	se	LXXII	Red	0.12	0.12	0.14	Disc
15841	615	ne	LXVIII	Red	0.09	0.92	0.04	Disc
15842	615	ne	LXVIII	Red	0.11	0.81	0.07	Disc
15843	615	ne	LXVIII	Red	0.07	0.77	0.05	Disc
15844	615	ne	LXVIII	Red	0.09	1.16	0.16	Disc
15845	615	ne	LXVIII	Red	0.08	0.87	0.07	Disc
15846	615	ne	LXVIII	Red	0.13	1.25	0.22	Disc
15847	615	ne	LXVIII	Red	0.08	0.45	0.08	Disc
15848	615	ne	LXVIII	Red	0.08	0.55	0.03	Disc
15849	615	ne	LXVIII	Red	0.11	0.92	0.06	Disc
15850	615	ne	LXVIII	Red	0.12	0.91	0.06	Disc
15851	615	ne	LXVIII	Red	0.11	0.95	0.1	Disc
15852	615	ne	LXVIII	Red	0.07	0.38	0.01	Disc
15856	659	se	LXXII	Red	0.15	0.94	0.26	Disc
16039	715	se	LXII	Red	0.13	0.95	0.21	Disc
16040	715	se	LXII	Red	0.1	0.9	0.08	Disc
16042	744	nw	LXII	Red	0.13	0.86	0.17	Disc
16043	714	sw	LIV	Red	0.12	0.95	0.18	Disc
16044	729	sw	LIII	Red	0.14	1.07	0.26	Disc
16045	729	sw	LIII	Red	0.13	1.18	0.16	Disc
16046	729	sw	LIII	Red	0.12	0.55	0.05	Disc
16047	729	sw	LIII	Orange	0.07	0.47	0.03	Disc
16048	729	sw	LIII	Orange	0.07	0.39	0.02	Disc
16049	729	ne	LIII	Red	0.14	0.97	0.13	Disc
16050	729	ne	LIII	Red	0.09	0.42	0.02	Disc
16051	768	ne	LX	Red	0.07	0.9	0.08	Disc
16052	768	ne	LX	Red	0.15	0.83	0.21	Disc
16053	768	ne	LX	Red	0.1	0.57	0.07	Disc
16054	768	ne	LX	Red	0.08	0.69	0.04	Disc
16076	670	sw	LXIV	Red	0.23	0.74	0.14	Disc
16080	670	sw	LXIV	Red	0.14	0.9	0.08	Disc
16101	692	nw	LXV	Red	0.11	0.81	0.07	Disc
16102	692	nw	LXV	White	0.33	0.56	0.09	Spherical disc
16103	726	ne	LXIV	Red	0.12	0.82	0.09	Disc
16104	714	sw	LIV	Red	0.15	0.98	0.28	Disc
16105	714	sw	LIV	Red	0.13	1.18	0.17	Disc
16106	714	sw	LIV	Red	0.14	1.04	0.15	Disc
16107	714	sw	LIV	Red	0.12	1.14	0.19	Disc
16108	714	sw	LIV	Red	0.14	0.81	0.17	Disc
16109	714	sw	LIV	Red	0.12	1.2	0.18	Disc
16110	714	sw	LIV	Red	0.11	0.64	0.12	Disc
16111	714	sw	LIV	Red	0.15	0.94	0.14	Disc
16112	714	sw	LIV	Red	0.08	0.79	0.08	Disc
16113	714	sw	LIV	Red	0.09	1.13	0.09	Disc
16114	714	sw	LIV	Red	0.09	0.86	0.08	Disc
16115	714	sw	LIV	Red	0.1	1.09	0.12	Disc
16116	714	sw	LIV	Red	0.1	1	0.11	Disc
16117	714	sw	LIV	Red	0.1	0.49	0.04	Disc
16118	714	sw	LIV	Red	0.13	1.03	0.12	Disc
16119	714	sw	LIV	Red	0.09	0.94	0.07	Disc
16120	714	sw	LIV	Red	0.52	1.08	0.11	Disc
16121	714	sw	LIV	Red	0.09	0.83	0.08	Disc
16122	714	sw	LIV	Red	0.09	0.9	0.07	Disc
16123	714	sw	LIV	Red	0.14	0.94	0.1	Disc
16124	714	sw	LIV	Red	0.11	0.84	0.07	Disc
16125	714	sw	LIV	Red	0.13	0.85	0.08	Disc
16126	714	sw	LIV	Red	0.12	0.94	0.09	Disc
16127	714	sw	LIV	Red	0.11	0.83	0.08	Disc
16128	714	sw	LIV	Red	0.07	0.65	0.03	Disc
16129	714	sw	LIV	Red	0.08	0.69	0.05	Disc
16130	714	sw	LIV	Red	0.08	0.88	0.03	Disc
16131	714	sw	LIV	Red	0.09	0.7	0.05	Disc
16132	663	ne	LXVI	Red	0.08	0.47	0.04	Disc
16133	663	ne	LXVI	Red	0.14	0.42	0.05	Disc
16134	663	ne	LXVI	Red	0.09	0.78	0.06	Disc
16135	663	ne	LXVI	Red	0.07	0.6	0.02	Disc
16136	692	nw	LXV	Red	0.16	0.94	0.21	Disc
16137	692	nw	LXV	Red	0.14	0.94	0.21	Disc

Anuradhapura: The Artefacts

Sf. no.	Contact	Square	Strat. phase	Colour	Length (cm)	Width (cm)	Weight (gm)	Shape
16138	692	nw	LXV	Red	0.11	0.83	0.07	Disc
16139	692	nw	LXV	Red	0.13	0.9	0.13	Disc
16246	698	nw	LXIV	Red	0.07	0.43	0.02	Disc
16247	697	ne	LXIV	Red	0.08	0.38	0.07	Disc
16248	643	nw	LXXII	Red	0.1	0.73	0.06	Disc
16249	670	sw	LXIV	Red	0.11	0.93	0.1	Disc
16250	670	sw	LXIV	Red	0.08	0.89	0.09	Disc
16251	670	sw	LXIV	Red	0.1	0.56	0.04	Disc
16253	718	n/a	LXV	Red	0.11	0.83	0.08	Disc
16254	729	nw	LIII	Red	0.16	0.88	0.14	Disc
16256	698	nw	LXIV	Red	0.11	0.35	0.03	Disc
16257	698	nw	LXIV	Red	0.06	0.44	0.03	Disc
16258	698	nw	LXIV	Red	0.12	0.6	0.05	Disc
16259	698	nw	LXIV	Red	0.08	0.39	0.03	Disc
16260	698	nw	LXIV	Red	0.09	0.52	0.06	Disc
16261	663	ne	LXVI	White	0.33	0.49	0.05	Spherical disc
16262	663	ne	LXVI	White	0.28	0.39	0.02	Spherical disc
16263	663	ne	LXVI	Red	0.11	0.88	0.12	Disc
16264	663	ne	LXVI	Red	0.09	0.76	0.07	Disc
16265	663	ne	LXVI	Red	0.09	0.74	0.06	Disc
16266	798	sw	XLVI	Red	0.17	0.43	0.05	Disc
16267	798	sw	XLVI	Red	0.1	0.42	0.03	Disc
16269	698	nw	LXIV	Red	0.1	0.49	0.04	Disc
16270	715	se	LXII	Red	0.12	0.69	0.13	Disc
16271	715	se	LXII	Red	0.13	0.97	0.19	Disc
16272	715	se	LXII	Red	0.18	0.95	0.31	Disc
16290	767	se	LX	Red	0.05	0.38	0.02	Disc
16633	850	ne	XL	Red	0.08	0.37	0.01	Disc
16822	964	sw	XXXII	Red	0.14	0.49	0.04	Disc
16992	1098	se	XXXI	Red	0.1	1.04	0.13	Disc
16993	1101	ne	XXVI	Red	0.11	0.44	0.03	Disc
16994	1101	ne	XXVI	Brown	0.19	0.34	0.03	Spherical disc
16995	1101	se	XXVI	Red	0.07	0.35	0.01	Disc
17349	1175	se	XVIII	Red	0.87	0.9	0.96	Hexagonal prism
17410	1293	ne	XVI	Red	0.5	0.51	0.19	Tube
17411	1293	ne	XVI	Orange	0.2	0.38	0.05	Spherical disc
17412	1362	sw	XVII	Red	0.09	0.5	0.06	Disc
17443	1197	nw	XXI	Red	0.14	0.39	0.05	Disc
17444	1172	se	XXII	Red	0.13	0.4	0.04	Disc
17445	1172	se	XXII	Red	0.09	0.45	0.04	Disc
17446	1172	se	XXII	Red	0.09	0.34	0.02	Disc
17447	1172	se	XXII	Red	0.13	0.51	0.06	Disc
17448	1172	se	XXII	Red	0.09	0.33	0.03	Disc
17449	1172	se	XXII	Red	0.09	0.39	0.02	Disc
17450	1172	se	XXII	Red	0.1	0.35	0.05	Disc
17451	1172	se	XXII	Red	0.17	0.35	0.03	Disc
17452	1172	se	XXII	Red	0.13	0.42	0.05	Disc
17453	1172	se	XXII	Red	0.13	0.4	0.04	Disc
17454	1172	se	XXII	Red	0.27	0.33	0.11	Rod
17455	1172	se	XXII	Pale blue	0.3	0.49	0.06	Spherical disc
17456	1172	se	XXII	Dark blue	0.39	0.46	0.16	Spherical disc
17475	1372	sw	XVII	Red	0.16	0.4	0.03	Disc
17476	1147	ne	XXIV	Red	0.13	0.41	0.04	Disc
17477	1125	se	XXIII	Red	0.13	0.56	0.06	Disc
17478	1125	se	XXIII	Red	0.13	0.55	0.05	Disc
17479	1125	se	XXIII	Red	0.17	0.51	0.08	Disc
17480	1125	se	XXIII	Red	0.17	0.45	0.05	Disc
17481	1125	se	XXIII	Orange	0.15	0.46	0.05	Disc
17482	1125	se	XXIII	Orange	0.16	0.45	0.04	Disc
17513	1125	se	XXIII	Pale blue	0.43	0.5	0.05	Spherical disc
17514	1125	se	XXIII	Red	0.19	0.5	0.06	Disc
17515	1125	se	XXIII	Orange	0.15	0.51	0.08	Disc
17533	1459	sw	XV	Orange	0.13	0.33	0.03	Disc
17613	670	sw	LXIV	Dark blue	0.61	0.67	0.17	Spherical disc
17614	729	sw	LIII	Red	0.14	0.81	0.25	Disc
17615	729	sw	LIII	Red	0.13	1.07	0.25	Disc
17616	600		XCV	Red	0.12	0.81	0.07	Disc

Index For: Anuradhapura Volume I: The Site & Volume II: The Artefacts

- Abbasid II:** 91,94,114,115
Abhayagiri (Anuradhapura) I: xxiii, 1,3,16,20,22,23,
 coins II: 7,8,10,12,13
 glass objects II: 349,351
 glazed ceramics II: 100,111-114
 metal objects II: 27,39,
 unglazed ceramics II: 168
Accelerator Mass Spectrometry I: 125,
Achaemenids I: 140,
Adichanallur (India)
 faunal remains II: 568
 metal objects II: 48,
Adzes (see axes)
Agate II: 377,379,385-386
Agriculture I: 11,24,55-56,137 II: 524,639,640,641,647,649
Ahichchhatra (India) II: 334,379,390,394
Ai Khanoum (Afghanistan) II: 333,334
Alagankulam (India) II: 133
Alms bowl II: 117,277
Alms-giving II: 85,
Alutbambuwa (Sri Lanka) I: 137,
Amazonite II: 377,394
Amethyst I: 79,126 II: 377,390-394
Anaikoddai (Sri Lanka) I: 137,
Anaikottai (Sri Lanka) I: 137,
Anuradha, Prince I: 2,10,18-19,23, 138
Anuradhapura
 history of excavation and discovery I: 15-17,
 description II: 1,
 citadel zone I: 17-21,
 forest and hermitage zone I: 25-26,
 monastic zone I: 21-23,
 tank and village zone I: 23-25,
 founding of I: 2-3,10,
 location and environment I: 7-12
Anuradhapura (New Town) I: 1,55,
Anuradhapura Citadel Archaeological Project I: 1,17,47,52 II:
 1,2,127
Ankamedu (India) I: 2,79,125,127,128
 botanical remains II: 637,639,640
 faunal remains II: 525
 human remains II: 622,623
 glass objects II: 333,334,356,357
 metal objects II: 27,29,46,
 unglazed ceramics II: 127,128,159,163,172
Amakaltu (Sri Lanka) I: 136
Arrowheads I: 73
 bone/ivory II: 572
 iron I: 73,127 II: 28,621
Arthasastra I: 18,19-21,139 II: 16,622,624
Ascetism II: 622,624
Ashlar I: 47,48,50,51,53,54,79,80,81,129,
Asoka I: 2,54,128,130
 inscriptions II: 444,453
Asokarama (Pankulitya) (Anuradhapura) I: 25
ASW1 I: 17,71,
ASW88 II: 432,433,454
Atranjikhara (India)
 beads (stone) II: 379
 glass objects II: 348
 metal objects II: 28,47
Auger cores I: 48,
Axes and adzes II: 29,
Ayodhya (India) II: 379
Bahirava figures I: 21
Bali (Indonesia) I: 129,
Ballan-bandi Palassa (Sri Lanka) I: 135,136 II: 562
Bamboo I: 11 II: 635,640,649
Baneval (India) I: 1,54
Banbhore (Pakistan)
 glass objects II: 334
 glazed ceramics II: 100,113,117
Bandaranaike, S.W.R.D. I: 1
Bandaranayake, S.D. I: x,3,7,21
Bangara (India) II: 165
Bangles
 ceramic II: 274
 glass I: 79 II: 333,347,349-352,356
Barley II: 639
Bars
 copper-alloy II: 50-51
 glass II: 333,353-356
 iron II: 32-36,
Basra (Iraq) II: 115,
Bat (*Microchiroptera*) II: 566,
Batadomba-lena (Sri Lanka) I: 135 II: 639
Beads (see also stone-working, glass objects and ceramics)
 hoard of I: 79,
 manufacturing techniques II: 377,412-413
 blanks I: 79 II: 380-381,383-385,387,389-
 398,401-405,407
 debitage II: 380-383,386-389,392-393,398-
 401,405,413
 spacers II: 377,390,403
discussion by material:
 agate I: 8 II: 385-386
 alabaster I: 79
 amazonite II: 394
 amethyst I: 53,79 II: 390-394
 carnelian I: 138 II: 380-385,649
 ceramic II: 274
 chalcedony II: 386
 chert II: 380
 crystalline limestone II: 407
 garnet II: 387-390
 greenstone II: 378-379
 glass I: 54,79 II: 333,353,356, Appendix A
 gold II: 54,
 ivory I: 79 II: 572
 lapis Lazuli I: 138 II: 377,
 sapphire I: 79,
 sard II: 386
 paste I: 126,
 quartz I: 79 II: 394-407
 quartzite II: 408-409
discussion by type:
 barrel II: 384,394,406
 button II: 384
 conch II: 378
 cube II: 386
 collared sphere II: 378,380,406,407
 disc II: 384,390,402,409
 fragments II: 408-409
 faceted II: 378,385,390
 hexagonal II: 384,385,390
 oval II: 386,402,406
 pendant II: 378,403
 spheres II: 377-378,383-385,389,393-394,401,403-
 407,409
 triangular II: 378,386,393
Beakers II: 335
Begley, V. II: 127
Begram (Afghanistan) II: 333,334
Beli-lena Kitugala (Sri Lanka) I: 135,
Bell, H.C.P. I: 17,
Bells II: 46-47
Benares (India) II: 623
Berenike (Egypt) II: 1,
Bhita (India) II: 85
Bhuvanekabahu IV, King I: 22,
Birds (various) II: 572-574

- Bitumen II: 107
 Biotite II: 412
 Blast furnace II: 77
 Bloom-smithing II: 77,
 Bodhighara (Bodhi Tree Shrine) (Anuradhapura) I: 2,15,16,21,22,23 II: 113
 Botanical remains II: 629-641,649
 discussion II: 629,638-641
 ethnographic examples II: 629,639-640,
 methodology II: 630,633,635,637
 Bone-manufacturing II: 117,
 Bracelets II: 30,
 Brahmagiri (India) I: 74,
 beads (stone) II: 379
 human Remains II: 623
 metal objects II: 46,54,55,
 Brazen Palace (Anuradhapura) I: 16,
 Brickbat I: 50,51,52,53,78,79,80,81,82,
 Bricks I: 8,16,52,53 II:630-633
 period B I: 81,82,
 period C I: 81,129,
 period F I: 79,80,
 period G I: 78,128,
 period I I: 77,127,
 Bridges I: xxiv,26-27
 Brohier, R.L. I: 10,24
 Buddhism I: 139,141,
 burial II: 622,624
 dietary considerations II: 502,541,572,587
 pilgrimages I: 3 II: 117,
 Sangha I: 24,25,128 II: 446
 spread of I: 130 II: 502
 Theravada II: 91,
 Buffalo, Water (*Bubalus*) II: 557-558
 Building A (Anuradhapura) I: xxii,18,19-20,
 metal objects II: 48,54
 metal-working II: 84
 Building B (Anuradhapura) I: 18,
 metal-working II: 84
 glazed ceramics II: 113
 Building C (Anuradhapura) I: xxii,18,
 Buna (Indonesia) II: 133,
 Burials II: 619-624, 630
 cist I: 137,140
 from other sites I: 135,136
 locations of/patterns of II: 619,621,622
 megalithic complexes I: 74,135,136,137,140 II:
 47,77,431,442,433,446,447,455,623,624,647
 pit I: 137,140 II: 55,619,621,623
 urn I: 137,140
 Burning troughs I: 77,128
 Burrows, S.M. I: 16,

 Carnelian I: 53,138 II: 165,377,379,380-385,412,649
 Caste system II: 524,587,621,649
 Cat (*Felis*) II: 563
 Cattirantai (Sri Lanka) I: 137,
 Cattle I: 56,126 II: 502,524-541,587,588,647
 domestication I: 11
 remains of Humped/Zebu (*Bos*) II: 524-541
 ceremonial/religious considerations II: 525,587,588
 Cave sites (Sri Lanka) II: 447,453,454
 Ceramics II: 91-117,127-277,333,334
 classification systems II: 127,159-160,175,
 dating II: 114-116,277
 discussion II: 91,116-117,127-128,175-176,277
 inscriptions/Graffiti II: 431-442,435,447
 molecular analysis II: 107
 skeuomorphs II: 334
 thin sectioning II: 127,128,159

 discussion by manufacture:
 British ceramics II: 113
 East Asian glazed ceramics II: 111-114
 Hellenistic II: 356,639
 unglazed coarse wares II: 175-274,333
 unglazed fine wares II: 127-174,333

 discussion by ware or style:
 Arikamedu type 10 I: 79,128 II: 55,159-163,277,334,
 Arikamedu type 18 II: 163-165,277
 Black-and-Red I: 73,126 II: 175,621,647
 black-and-red burnished I: 126,
 brown II: 173-174,
 buff ware II: 107-111
 Changsha painted stoneware II: 111-112
 Chinese glazed I: 15,48,54,129,130, (see also Ding
 and Xing White Ware)
 coarse grey stoneware II: 113
 Ding white II: 112,116
 fine black-slipped II: 167-168
 Grey ware I: 126,127 II: 128-132,277
 Hellenistic pottery I: 128,129
 imitation lustre II: 93-94
 lead-glazed II: 98-99
 locally produced glazed II: 113-114,333
 lustre I: 129 II: 91-93,114,333 (see also Imitation
 Lustre Ware)
 Sasanian-Islamic glazed I: 48,54,129,130 II: 99-
 107,114,115,116
 Northern Black Polished I: 127 II: 165,277
 omphalos II: 172,277
 Painted Grey I: 54
 Parthian I: 129,
 Red Polished II: 168-171,277
 Rouletted I: 48,53,79,125,127,128,129,130,137 II:
 55,127,128,133-159,168,176,277
 unslipped II: 165-166
 white slipped with red paint II: 172-173
 White Tin-Glazed II: 94-98
 Yue green II: 112-113,116

 discussion by period:
 period A I: 130 II: 98,107,113
 period B I: 129-130 II: 91,98,107,111-113
 period C D & E I: 129-130 II: 91,98-99,111-113
 period F I: 79,129 II: 99
 period G I: 78,79,128-129 II: 99,334
 period I I: 76,127-128,
 period J I: 73,126,127,
 period K I: 126,
 Chains II: 28,
 Chalcedony II: 377,379,386,412
 Chandraketugarh (India) II: 133,159
 Chanhudaro (Pakistan) II: 377
 Charcoal I: 73,74-75,77,126 II: 562,629,630,633-635,641
 Chena (slash and burn cultivation) I: 56 II: 639,641,647,649
 Chert II: 377,379,380
 Childe, V.G. II: 647-649
 China II: 77, 111,114,115,116,
 Chronology I: 3
 Citadel (Anuradhapura) I: 15,17-21, 48 II: 647-649
 fortifications I: 33,47-56
 geophysical survey I: 48-52
 Mahapali I: 18,
 routes into I: 26
 urban planning I: 18-21,54-55 II: 622,648
 Clam, freshwater corrugated (*Parreysia*) II: 502,550-556
 Clay I: 8 II: 630
 floors I: 74,76,
 platform I: 77,78,
 sealing I: 129,
 Cleaver blades II: 30
 Coconut I: 11,127 II: 636,637,639,640
 Codrington, H.W. I: 16,17,125,127-128,129,
 Coins I: 79,125,128,129,130 II: 7-20,647,648
 chronology of II: 19-20
 discussion of II: 7,16-20
 Mauryan affiliation II: 16
 silver-plated II: 7,8,17

 discussion by type:
 British II: 14,19,20
 Caitya and Fish II: 10,18,20
 Elephant and Swastika II: 8,17,19,

- Lakshmi plaque I: 129,137 II: 10-12,18,19,20
 Lakshmi typell: 13,19,20
 Late Roman Imperial Third Brass II: 13,18-19,20
 Maneless Lion II: 12-13,18,19,20
 Nandipada and Swastika II: 9-10, 18,20
 Pandyan II: 13-14,19,20
 Punchmarked II: 7-8,16,17,18,19
 Tree and Caitya II: 10,18,20
 Tree and Swastika II: 8,9,18,20
 unidentified II: 14-16,
- discussion by period:*
 period A II: 14,19
 period B II: 10,14
 period C, D & E II: 7,8,10,12,13,14,19
 period F II: 7,10,12,13,14,18,19
 period G II: 7,8,9,10,12,14,17,18
 period H II: 8,14,17
 period I II: 14,16,17,18
 period J & K II: 16
- Comb II: 570
 Collars, Iron II: 31-32
 Colonisation I: 138,139,140,
 Computer Applications I: 48-49,
 Continuity of occupation I: 21,
 Copper-Alloy I: 126 II: 621
 metal residues II: 78,83,84
 smithing II: 83,84,85
 wire I: 73,127,
 Coral II: 408
 Cotton II: 639,641
 Craft specialisation II: 647,649
 Cremation I: 77,128 II: 623,624,630
 Crucibles II: 77,78,84,354
 Crystalline limestone II: 407,412-414 (see also quartz)
 Culavamsa I: 2,3,16,21,25,56
 Cultural Triangle I: 1
- Dairy products II: 524,525,557,560,562
 Daladage (Anuradhapura) I: 18,20,80 II: 117
 Dambulla (Sri Lanka) II: 54
 Dating I: 125-131
 coins I: 125-131
 radiocarbon I: 53,125-131 II: 433,453, 629,633,641
 radiocarbon calibration I: 125-126
 other sites in Sri Lanka I: 136-137
 Deer I: 126,127 II: 502-524,561-562,564,566-568,587
 Ceylon Spotted (Axis) II: 502-524,564,587
 Mouse Deer/Chevrotain (*Tragulus*) II: 568
 Muntjak (*Muntiacus*) II: 566-567
 Sambhur (*Cervus*) II: 561-562
 Dendrochronology II: 633,641
 Deraniyagala, P.E.P. I: 16
 Deraniyagala, S.U. I: ix,x,1,2,7,17,71,125,127,128,129,136,138
 II: 1,2,28,29,127,175,431,455,647,650
 sondages I: 71,83,135 II: 83,431,453,647
 Devanampiya Tissa, King I: 2,3,10,16,21,22,26,54
 Dhanyakataka (India) I: 1,54
 Dharanikota (India) II: 159,333,334
 Dhatusena, King I: 2
 Dhatva (India) II: 379
 Diet II: 501,502,524-525,557,562,573,587-588
 religious influences II: 525,541,572,573,586,587-588
 taboos II: 587-588
 Direct method of iron production II: 77,
 Disc I: 54,73
 Dog (*Canus*) I: 127 II: 558-560
 Doorway I: 81
 Drainage I: 9-10
 Drip Ledges (Caves) I: 8,26
 Dry Zone (Sri Lanka) I: 7,9,55
- Early Historic cities I: 54
 Early State Modules I: 140
 Elephant (*Elephas*) I: 56 II: 556
 Epigraphy II: 453 (see Inscriptions and Graffiti)
 Erdozy, G. I: 55
- Fa Hsien (Faxien) I: 3,23 II: 1
 Faunal remains I: 11,126-127 II: 501-588 (also see various animals)
 discussion II: 501,577-578
 methodology II: 501
- discussion by period:*
 period A II: 501,575,580
 period B II: 501,574,575,577
 period C D & E II: 501,541,569,574,575,577,580
 period F II: 501,575,577,580
 period G II: 501,502,524,525,541,550,568-572,577,580,587
 period H II: 501,502,524,525,541,550,577,580
 period I II: 501,502,524,525,541,550,568,571,572,587
 period J II: 501,502,524,525,541,550,575,577
 period K II: 575
- Fences
 period B I: 81
 period H I: 77
 period J I: 73
 period K I: 72
- Fire welding II: 77
 Fish I: 11 II: 581-583
 Flooding I: 10,55,
 Flood defences I: 54,55,
 Floors
 burials II: 619,623
 period A I: 82
 period F I: 79
 period G I: xxvii-xxviii,77,78,128
 period I I: 75,76,77,127
- Flotation II: 629,630,637-638
 Foil (gold)II: 54
 Forest monasteries (Anuradhapura) I: 25-26
 Fortifications (Anuradhapura) I: xxiv,47-56,74,75,127 II: 647,648
 Eastern survey I: xxiv,50-51
 Northern survey I: 49-50
 Southern survey I: 51
 Western survey I: 51-52
 buttresses I: 75,79
 construction material I: 52-53
 date of foundations I: 48,52-54
 history of excavation I: 47-48
 man-hours I: 55,56,138,139
 as a Microcosm/Symbolism I: 55 II: 624,649
 other Early Historic fortifications I: 54-55
 role I: 54-56
- Fox, Flying (*Pteropus*) II: 567
 Freshwater Clam (*Parreysia*) I: 11 II: 502,550-556
 Furnaces/ovens II: 629-630,634
 linings II: 78,83
 period H I: 77
 period I I: xxvii,74-75,76,127 II: 630
 period J I: 73,126 II: 629-630
- Fustat (Egypt) II: 335,348
- Garh-Kalika (India) II: 379
 Garnet I: 79 II: 377,387-390
 Gateways/Gatehouses I: xxii,18,47-48,53, II: 46,349
 Gautama Buddha I: 3
 Gedige (Anuradhapura) I: 16,17,18,19,20,81,129
 faunal remains II: 525,541,562,563,571,587
 beads (stone) II: 377
 inscriptions/graffiti II: 447
 metal objects II: 27,29,39,47,49,54
- Geiger, W. I: 139
 Geophysics I: xxi,47,48-49,54
 Glass I: 53,54 II: 333-357
 dating/chronology II: 333,
 debitage II: 357
 discussion II: 333-335,356-357
 manufacturing II: 117,335,353,357
 molten I: 79
 skeuomorphs II: 334
 trade of II: 333,335
- discussion by type:*

- bangles II: 333,347,349-352,356
 plain II: 349-351
 spiral II: 351-352
 other II: 352
- beads II: 333,353,356,Appendix A
 Hoard of II: 353
- beakers II: 335
- bowls II: 335
- ear reels II: 347,348
- hair curls II: 347,348
- ingots/unformed II: 333,353-356
- kohl sticks II: 335,347,348
- rings II: 333,347,348-349,356
- vessels I: 129,130 II: 333,334,335
- discussion by region:*
 Byzantine II: 353
 Chinese II: 335
 Egyptian II: 333,334,356
 Greco-Roman I: 129 II: 55,333,334,356,639
 Islamic II: 334,356,
 Near Eastern II: 333,334,335,353,356
- discussion by period:*
 period A II: 349,352
 period B II: 333,334,349,352
 period C D & E II: 333,347,348,349,351,352,353
 period F II: 333,334,347,348,349,351,353
 period G II: 333,334,347,348,353
 period H II: 353
 period I II: 333,347,353
 period J II: 333,353
- Gneiss I: 1,72,79,80,81
- Goat (*Hircus*) II: 560
- Godakumbura, C.E. I: 17,47
- Gold
 objects II: 27,54,55
 working II: 85
- Goldsmiths II: 433
- Graffiti I: 73,83,126,127,137,138 II: 28,431,442-453,455-456,648-649
 chronology II: 455-456
 discussion of II: 455-456
 methodology II: 431,442-443,453,455-456
- discussion by period:*
 period B II: 443
 period C D & E II: 443
 period F II: 443
 period G II: 431,443,444,446
 period H II: 431,443,444,446
 period I II: 431,443,444,446,455
 period J II: 431,443,444,446,454,455
 period K II: 431,443
- Gram II: 639
- Granite I: 80
- Graphite I: 7-8 II: 84,
- Greenstone II: 378-379
- Handles II: 30
- Hare (*Lepus*) I: 126 II: 556,564-566
- Harappa (Pakistan) II: 442,581
- Harris matrix I: 71
- Hastinapura (India) I: 54 II: 379,569,571
- Hearths
 bottoms II: 78
 lining II: 78,83
 period B I: 81
 period G I: 78
 period I I: 76,77
 period K I: 72,
- Henagahapugala (Sri Lanka) I: 135,136
- Hinduism
 burial II: 622
 dietary influences II: 525,573,586,587,588
- Hoard I: 79 II: 353
- Hocart, A.M. I: 18,19,26
- Horse (*Equus*) I: 11,127 II: 562-563
- Hunting I: 11,26 II: 502,558,561,562,564,572,578,587,647
- Ibbankatuva (Sri Lanka) I: xxx,1,137,141 II: 54,
- Indo-European languages I: 138 II: 432,435,
- Ingots (see bars)
- Inscriptions II: 1,431-442,453-456
 chronology of II: 453,455-456
 development of script II: 433-444
 discussion of II: 431,433-434,455-456
 methodology II: 431,432,442-443
 on ceramics II: 431-442,447
 on ivory and bone II: 454
 on stone moulds II: 84
- discussion by script:*
 Asokan II: 444,453
 Early Brahmi I: 127,128,138 II:
 85,431,432,433,444,446,447,455,648,649
 Prakrit I: 139 II: 433,435,454,456
 Tamil Brahmi II: 431,432,433,444,446,447,455
- discussion by period:*
 period B II: 433,434,435
 period G II: 431,433,434,435,454
 period H II: 431,433,434,435,453,454
 period I II: 431,433,434,435,453,454
 period J II: 431,432,433,435,454
 period K II: 431
- Inamgaon (India) I: 136
- Iron I: 126
 ore I: 8-9
 ring/collar II: 636
 slag I: 126
 smelting II: 77,78
 smithing II: 78,83,85
- Irrigation I: 24,26,139,141 II: 630,649
- Isurumnumi Vihara (Meghagini) (Anuradhapura) I: 16,24,25,26
- Ivory I: 129 II: 501,562,568-572
 bangles II: 569-570
 beads II: 572
 inscriptions on II: 454
 manufacturing II: 117
 objects II: 568-572
- Jasper II: 377,379,386,412
- Jaffna (Sri Lanka) II: 13
- Jakhara (India) II: 390
- Janapandas I: 139,140
- Japanese Excavations(Anuradhapura) I: 47,48,52 II: 10
- Jaya-Ganga canal (Anuradhapura) I: 10,24,26
- Jayanta, King I: 3
- Jayavapi pond (Tissawewa) (Anuradhapura) I: 10,23,25
- Jayawardene, J.R. I: 1
- Jetavana Vihara (Jetavanaramaya) (Anuradhapura) I: 1,3,15,16,22,23,128
 coins II: 7,8,10,12,13
 glass objects II: 351
 glazed ceramics II: 112
 metal objects II: 27,39,
 unglazed ceramics II: 159,168,277
- Jorwe Culture (India) II: 442,443
- Kabara-galge (Sri Lanka) I: 135
- Kadiraveli (Sri Lanka) I: 137
- Kahapana (monetary unit) II: 16,17
- Kairouan (Tunisia) II: 115
- Kakusandha Buddha I: 3
- Kandyan Kings I: 15
- Kandy (Sri Lanka) II: 27
- Kantarodai (Sri Lanka) I: 1,128,137,141 II: 648
 coins II: 8,11,12
 glazed ceramics II: 114
 metal objects II: 27
 unglazed ceramics II: 128,163
- Karaiikadu (India) II: 159
- Karainagar (Sri Lanka) I: 137
- Karshapana (monetary unit) II: 16

- Kausambi (India) I: 54,55
 beads (stone) II: 387
 faunal remains II: 568
- Kautilya (Sri Lanka) I: 18,19
- Kennedy, K. I: 136
- Khambat (India) II: 377
- Khurasan (Iran) II: 335
- Kilwa (Tanzania)
 glass objects II: 335
 glazed ceramics II: 91,94,100,115-117
- Kings, chronology of I: 155-158
- Kingship, concept of I: 139,140
- Kiribat Vihara (Anuradhapura) I: 25,26 II: 10,12
- Knife blades II: 29,30
- Knox, R. I: 15,56 II: 117
- Kodumanal (India) II: 444,447,455,456
- Kohl sticks
 copper-alloy II: 47
 glass II: 335,347,348
- Konagamana Buddha I: 3
- Kumbapettai (India) II: 622
- Lakshmi plaque I: 129,137 II: 10-12,18,19,20
- Lal, B.B. I: ix II: 447
- Lankarama (Anuradhapura) I: 23
- Lankatilika Vihara (Anuradhapura) I: 22
- Lapis lazuli II: 377,414
- Laws of Manu II: 587-588,622
- Leach, E.R. II: 639-641
- Lead objects II: 27,54-55
- Lead-glaze II: 115
- Leaf (gold) II: 54
- Lime mortar I: 81,129
- Limestone, crystalline II: 407
- Limestone paving II: 54
- Limestone slabs I: 77,78,79
- Limestone Stupa (miniature) I: 79
- Mahajanapadas I: 140
- Mahameghavana (Mahamegha) (Anuradhapura) I: 2,22
- Mahapali (Anuradhapura) II: 113,54
- Mahasena, King I: 23
- Mahavamsa I: 2-3,10,15,17,19,22-23,23-24,25,26,47,54,55,128,138 II: 85,454,560,562,572,574,622
- Maha Vihara (Anuradhapura) I: 2,15,22-23,24
- Mahaweli Irrigation Project (Sri Lanka) I: 139
- Maheswar (India) II: 379
- Mahinda I: 2,16,22,54,128 II: 434,445
- Mahinda IV, King I: 20,22,24
- Mahinda V, King I: 15
- Malvatu Oya (Anuradhapura) I: 7,9,10,24,26,55,126 II: 621
- Mampi-ta-Vihara (Sri Lanka) II: 16
- Man hours I: 55,56,138,139 II: 647,648
- Mangrovel: 77 II: 562,567,634
- Manda (Kenya) II: 100,117
- Mannar (Sri Lanka)
 faunal remains II: 562
 glazed ceramics II: 117
- Mantai (Sri Lanka) I: 1,2,7,77,129,135,137,141 II: 648
 botanical remains II: 639,640
 coins II: 8,12,13
 faunal remains II: 562
 glass objects II: 334,357
 glazed ceramics II: 91,94,100,107,111-113,117
 metal objects II: 27
 unglazed ceramics II: 133,168
- Manuscript covers II: 570
- Marshall, J.H. I: ix
- Maski (India)
 beads (stone) II: 379,387,390,394
 glass objects II: 352
 human remains II: 621,622,623
 metal objects II: 46,54
- Mathura (India) II: 85,390
- Mauryan Empire I: 54,130,138,139,140,141 II: 16
- Megalithic burials I: 74,135,136,137,140 II: 47,77,431,442,433,446,447,455,623,624,647
- Meghagiri Vihara (see Isurumnumi)
- Metal objects II: 27-55,333,639
 conservation of II: 27
 discussion of II: 27,55
- discussion by material*
 copper-alloy II: 27,46-54,55
 gold II: 27,54,55
 iron II: 27,28-46,55
 lead II: 27,54,55
- discussion by period*
 period A II: 27,54
 period B II: 27,30,36-39,48-50
 period C D & E II: 27,29-30,36-39,48-50
 period F II: 27,29,30,36-39,46-50,54
 period G II: 27-32,36-39,46-50,54-55
 period H II: 27-32,36-38,47,49-50
 period I II: 27-32,36-38,46-47,49-50,55
 period J II: 27-29,38,56,49-50
 period K II: 27
- Metal-working II: 77-85
 discussion of II: 77,85
- discussion by residue*
 crucibles II: 77,78,84
 ferrous slags and residues II: 77,78-83
 non-ferrous slags and residues II: 77,78,83
 silicate slags II: 78,83
 smelting slags II: 78
 smithing slags II: 78
 stone moulds II: 77,84-85,
- discussion by period*
 period A II: 84
 period B II: 84,85
 period C D & E II: 84,85
 period F II: 83,84
 period G II: 83,84,85
 period I II: 83
 period J II: 83
 period K II: 78,85
- Mica II: 377,410
- Microcosm I: 55 II: 622
- Mihintale (Anuradhapura) I: xxx,7,22,24,128,
 coins II: 8
 inscriptions II: 433,434,453,454
- Millet I: 11 II: 630,639,640,641
- Minisavatiya Vihara (Anuradhapura) I: 1,3,22-23
- Mirror II: 48
- Mishra, V. I: ix
- Moat (see Fortifications)
- Mohenjo-daro (Pakistan) II: 377
- Molluscs (various) II: 550,562,583-587
- Monasteries I: 21-23
 division of I: 21
 establishment of I: 22-23
- Mongoose (*Herpestes*) II: 563
- Mould, jewellers II: 435
- Mudbrick I: 82
- Muscovite II: 410-412
- Mustard II: 639
- Mysore (India) II: 447
- Nagal (India) II: 379,443
- Nagara (India) II: 379
- Nagarjunakonda (India) II: 623
- Nagda (India) II: 379,387
- Nails
 copper II: 48
 iron I: 79 II: 37-43
 large-headed II: 38
 L-shaped II: 39
 mushroom-headed II: 39
 T-shaped II: 38
 tapering II: 37-38
- Nailshafts II: 39-43
- Nalanda (India) II: 334

- Narenda Simha, King I: 15
 Nasik (India) II: 84
 Navdatoli (India) II: 379,394
 Nevasa (India) II: 352
 Nishapur (Iran) II: 93,94,107,116,335
- Nissanka Malla, King I: 26
 Needles II: 30,
- Ore, iron I: 8-9
 Ovens (see furnaces/ovens)
 OxCal I: 125,126 II: 453
- Pacimarama (Western Monasteries) (Anuradhapura) I: 25
 Pacinatissa Pabatta (Anuradhapura) I: 25
 Paithan (India) II: 333,334
 Palm fibre I: 77 II: 637,639
 Palm leaf II: 649
 Pamsukulins I: 25
 Pandukabhaya, King I: 2,10,16,19,23,26,53,54,55 II: 622
 Pandyas II: 17,18,19, 444
 Pankuliya (Asokarama) (Anuradhapura) I: 25
 Parakramabahu I, King I: 15,21,24,54
 Parakramabahu II, King I: 15,54
 Paravavita, S. I: 17,18,25,82,129 II: 113,447
 Parker, H. I: 16,17
 Pataliputra (India) I: 128 II: 568
 Peer Polity Interaction I: 139
 Pendants II: 378,403
 Pen II: 454
 Peninsular Iron Age Symbol System II: 443,455,456
 Pepper II: 639
 Petal decoration II: 48
 Pig (Sus) II: 502,541-550,587
 Pilgrimage I: 15,16,23,27
 Pillared Hall/Structure I: 71,79-80,83,129 II: 1
 faunal remains II: 570
 glazed ceramics II: 116
 human Remains II: 619
 metal objects II: 30,46,47,48,54
- Pins and styli
 bone/ivory II: 571-572
 copper-alloy II: 48-49
 iron II: 30
- Pipes II: 32
 Pits I: 73,74,75,77 II: 630
 glazed ceramics found II: 115
 metal-working residues found II: 78,83
- period A I: 82
 period B I: 81
 period C D & E I: 80
 period G I: 77,78,79
 period I I: 74-75,76,77,128
 period J I: xxvi,73-74,126,127 II: 1
 period K I: 72
 (see also burning troughs)
- Plantains II: 639
 Polonnaruwa (Sri Lanka) I: 22,81,130
 coins II: 13
 glass objects II: 351
 glazed ceramics II: 112
 human remains II: 623
 metal objects II: 28,46
 unglazed ceramics II: 277
- Pomparippu (Sri Lanka) I: 136,137
 human Remains II: 621
 metal objects II: 27,29,46,47,48,55
- Porcupine (*Hystrix*) II: 563
 Postholes II: 634
 burials associated II: 619
 glazed ceramics found II: 115
 metal-working residues found II: 78
- period B I: 81,82,
 period G I: 77,78,
 period H I: 77,
- period I I: 74,75-76,77
 period J I: 72-74,126
 period K I: 71-72,
- Prakrit II: 433,435,454,456
 Premasada, R. I: 1
 Pul Eliya (Sri Lanka) II: 639,640
 Puliyankulama (Pubbarama) (Anuradhapura) I: 25 II: 8
 Puttalam (Sri Lanka) II: 562
- Quartz I: 79,126 II: 377,394-407,412
 Quartzite II: 377,408-409
 Quemstone I: 78
- Ragupathy, P. I: 141
 Radiocarbon dates I: 125-126,131,133,209
 Rainfall I: 9-10
 Rajaraja I, King II: 19
 Rajavaliya I: 19,53,54
 Rajghat (India) I: 54-55 II: 623
 Rajgir (India) I: 55,140 II: 444
 Ramparts (also see Fortifications)
 discussion I: 54-56,139
 excavation I: 52-54
 survey I: xxiv,47-48,49-52,54
- Ranmasu Uyana (Royal Pleasure Gardens) (Anuradhapura) I: 24
 Rat II: 556-557,567-568
 Rathapura (Sri Lanka) II: 502,567
 Recording systems I: 71
 Red gravel I: 78
 Reddish Brown Earths I: 52,53,139
 Relics I: 2,23 II: 1
 Reptiles (various) II: 574-581
 Rice I: 11,56,127 II: 185,630,638,639,640,647,649
 Rings
 copper-alloy II: 47-48,
 iron II: 636
 glass II: 333,347,348-349,356
 stone II: 383,394,403,408,409
- Ritigala (Sri Lanka) I: 7,25
 Robber-pits I: 50,54,71,78,79,80,81,129 II: 570-571,619
 Rubbing stone I: 73,127 II: 621
 Ruhuna (Sri Lanka) II: 85
 Ruvanvalisaya (Anuradhapura) I: 2,3,22,26
 coins II: 12
 inscriptions I: 26
- Saddlestone I: 78,79,80
 Samiddha, King I: 3
 Sandy clay I: 71,72,73,74,75,76
 Sankha and Padma I: 21
 Samarra (Iraq) II: 115
 Sanchi (India) II: 571
 Sanur (India)
 inscriptions/graffiti II: 444,455
 metal objects II: 32,55
- Sapphire I: 79
 Sard II: 377,379,386
 Satankota (India) II: 407
 Saw blades II: 28-29
 Script
 Brahmi I: 2,26,130,138 II:
 431,432,433,444,446,447,455
 Kharosthi II: 431
 North Indian II: 433,434,435,445,454,456
 Tamil Brahmi II: 431,432,435,444,448,454,456
- Sea Cow (*Dugong*) II: 562,587
 Sembiran (Indonesia) II: 133,159
 Seneviratna, A. I: 1
 Seneviratne, S. I: 17,25,137-138,138 II: 55,647
 Serce Limani (Turkey) II: 353
 Serpentine II: 412
 Sestieri, P.C. I: 16
 Settlement patterns/hierarchies I: 136-141 II: 649-650
 Sharma, G.R. I: ix
 Sheets II: 54-55
 Sheet fittings
 copper alloy II: 49-50

- iron II: 36-37
 Shell I: 126,127 II: 550,562,583-587
 middens I: 135,136
 Shellfish (various) II: 562,583-587
 Shiva's Trident I: 130,
 Sigiriya (Sri Lanka) I: 7,24
 botanical remains II: 639
 glass objects II: 351
 metal objects II: 27,39,54
 Silk Route II: 91
 Silva, R.H. de I: x,3,17,47,48
 Silver II: 78,85
 Sinhala (language) II: 435
 Siraf (Iran)
 glass objects II: 334
 glazed ceramics II: 91,94,100,107,111-113,116
 unglazed ceramics II: 173
 Sirimeghavanna, King I: 2
 Sisupalgarh (India) I: 54,125
 metal-working II: 85
 unglazed ceramics II: 133
 Skeuomorphs II: 334
 Slag I: 126 II: 77-85
 ferrous slag II: 77,78-83
 non-ferrous slag II: 77,78,83
 redeposition of II: 85
 silicate slag II: 78,83
 smelting slag II: 78
 smithing slag II: 78
 Slots
 period B I: 81
 period G I: 77,78
 period I I: 74,75-76,77
 Smelting (see metal-working)
 Smithing (see metal-working)
 Snail shells I: 50,51
 Soapstone II: 408
 Social organisation II: 647
 Soils I: 11-12
 Somnath (India) II: 165,379
 Sorghum II: 639,640
 Spearheads II: 29
 Sravasti (India) II: 390
 Sri Lanka
 location of I: 5,143,144
 climate, drainage and relief I: 9,13,55 II: 556
 geology and resources I: 7-9,14 II: 84,
 91,379,394,407,408,410,412
 soils I: 11-12
 Sripuram (Sri Lanka) II: 623
 Stamp Seals II: 47
 Staple II: 32
 Stokehole I: 75 II: 630
 Stone I: 8 II: 377-414
 debitage I: 8 II: 380,381,383,384,385,387,389,390-
 392,393,394,395-8,401,402
 discussion II: 377,413-4
 stone-working I: 8, II: 333,377,412-413
 provenance of II:
 379,387,390,394,407,408,410,413,414
 discussion by object:
 bangles II: 402,409
 beads II: 377-409,412-414
 hammerstones I: 8
 pendants II: 378,403
 rings II: 383,394,403,409
 rubber I: 73,126
 discussion by material:
 agate II: 377,379,385-386
 amazonite II: 377,394
 amethyst II: 377,390-394,
 carnelian II: 377,379,380-385,412
 chalcedony II: 377,379,386,412
 chert II: 377,379,380
 garnet II: 377,387-390
 greenstone II: 378-379
 jasper II: 377,379,386,412
 lapis lazuli II: 377,414
 mica II: 377,410
 muscovite II: 410-412
 sard II: 377,379,386
 serpentine II: 412
 soapstone II: 408
 quartz II: 377,394-407,412
 clear II: 394-403,412
 smoky II: 403-407
 quartzite II: 377,408-409
 Streets I: 20,26
 Structures excavated I: 71-83 II: 1
 period A I: 82,
 (dating) I: 130
 period B I: 54,81-82,83
 (dating) I: 129-130
 period C I: 54,80-81
 (dating) I: 129-130
 period D I: 54,80
 (dating) I: 129-130
 period E I: 54,80
 (dating) I: 129-130
 period F I: xxix,53,79-80,83
 (dating) I: 129
 period G I: xxvii,xxviii,xxix,53,77-79,83
 (dating) I: 128-129
 period H I: 77,83
 (dating) I: 128
 period I I: xxvi,xxvii,53,56,74-77,82,139 II: 1
 (dating) I: 127-128
 period J I: xxv,xxvi,53,56,72-74,82,138,139 II: 1
 (dating) I: 126-127
 period K I: 53,56,71-72,82,137,139 II: 1
 (dating) I: 126
 Stupa umbrella II: 48
 Styli I: 127,128
 Subsistence I: 56,135,137 II: 647,648,649
 Suratissa, King I: 55
 Susa (Iran) II: 115

 Tamluk (India) II: 168
 Tanks I: 9-10,16,23-25 II: 647,648,649
 bunds I: 27,138 II: 649
 establishment of I: 23-24
 Basavakkulam I: 23
 Nachchaduva I: 26
 Nuvaravava I: 23
 Tissavava I: 23
 Taxila (Pakistan) I: 129
 beads (stone) II: 390,394,407
 faunal remains II: 568,569,571,572
 glass objects II: 333,334,348,349,354
 glazed ceramics II: 99,115
 metal objects II: 30,31,47,48
 metal-working II: 84,85
 unglazed ceramics II: 165,274
 Ter (India) II: 333,334
 Terrapin I: 127 II: 577-580,649
 Territorial markers II: 624
 Textiles II: 636
 Thapar, B.K. I: ix
 Threshing II: 640
 Thuparama (Anuradhapura) I: 2,3,21,22,39,51 II: 10
 Tile I: 8 II: 630-633,639
 nails I: 75
 period F I: 80
 period G I: 78,128
 period I I: 74,75,76,127
 Tin-glaze II: 91,93,94,116,333
 Tissamaharama (Sri Lanka) II: 7,8,10
 Toluva (Anuradhapura) I: 25
 Tooth Relic I: 2,17
 Temple of the Tooth (see Daladage)
 Trade I: 2,38,138,140 II: 1,335,556,637,639,647,648,649
 East Asian II: 117
 Greco-Roman I: 129 II: 18,117,163,639,649
 Near Eastern II: 333,356
 Indian Ocean I: 128,129 II: 91,117,333,356

- Tra Krieu (Vietnam) II: 133
- Transhumance II: 624
- Tripuri (India) II: 379
- Tweezers II: 31
- Ujjain (India) I: 54,55,77
 - coins II: 17
 - metal-working II: 84
- UNESCO Mission to South Asia I: 48
- UNESCO World Heritage Site I: 1
- Uraiyur (India) II: 133
- Urbanisation II: 647,649,650
- Urban Planning I: 20 II:649
 - Arthasastra I: 18-20,21
 - Mahavamsa I: 19
 - microcosms I: 55
 - Rajavaliya I: 19
 - roads I: 20,47
 - walls and ramparts I: 20,47
- Uti, King II: 434
- Vanni Kings I: 15
- Vasabha, King I: 24
- Vattagamani, King I: 20,23
- Veddas I: 135-136 II: 558
- Veerapuram (India) II: 408
- Vegetation I: 10-11
- Vessagiri (Anuradhapura) I: 16,25,26
- Vessels
 - as crucibles II: 84
 - bone/ivory II: 570
 - copper-alloy II: 48
 - glass II: 333,334,335
 - Greco-Roman II: 48,55
- Vijaya, King I: 2,138
- Vijaya Rajasimha, King I: 15
- Vijayabahu I, King I: 15,22,54
- Vijayabahu IV, King I: 15,54
- Vijayabahu's Palace I: 25
- Vijayarama (Anuradhapura) I: 25
- Votive deposits I: 79,129
- Wall I: 76
- Water I: 55
 - annicuts I: 9
 - cascade system I: 11
 - drainage I: 9-10,24
 - storage I: 9
- Water Buffalo (*Bubalus*) II: 557-578
- Wattle and daub I: 8 II: 84,624
 - period B I: 81,82
 - period G I: 78,128
 - period I I: 74,75,127
 - period J I: 72-73
- Weber, M. I: ix
- Wells I: 9 II:83
 - period C D & E I: 80
 - period I I: 76
 - period J I: 73
 - period K I: 72
- Western Monasteries (Anuradhapura) I: 25-26
- Wheeler, R.E.M. I: 74,79,129,140
- Wheat II: 639
- Wire
 - copper-Alloy I: 73 II: 49,55
 - iron II: 30
- Wood (non-charcoal) II: 635-636,639,641
- Yakkhas I: 19,55
- Yakshas I: 21
- Yoda Ela (Sri Lanka) I: 10

